



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

NOV 25 2015

REPLY TO THE ATTENTION OF:

**CERTIFIED MAIL 7009 1680 0000 7677 7858**  
**RETURN RECEIPT REQUESTED**

Mr. Erik Reinhard  
Compliance Coordinator  
Hydrite Chemical Company  
114 North Main Street  
Cottage Grove, Wisconsin 53527

Re: Notice of Violation  
Compliance Evaluation Inspection  
EPA ID Number: WID000808824

Dear Mr. Reinhard:

On September 21-23, 2015, a representative of the U.S. Environmental Protection Agency inspected the Hydrite Chemical Company ("Hydrite") facility located in Cottage Grove, Wisconsin. As a licensed treatment and storage facility as well as a large quantity generator of hazardous waste, Hydrite is subject to the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq. (RCRA). The purpose of the inspection was to evaluate Hydrite's compliance with conditions of its license, as delineated in its Feasibility Plan and Operations Report ("FPOR") and with certain additional provisions of RCRA and its implementing regulations related to the generation, treatment, and storage of hazardous waste. A copy of the inspection report is enclosed for your reference.

Based on information provided by Hydrite, on EPA's review of records pertaining to Hydrite, and on the inspector's observations, EPA has determined that Hydrite has unlawfully stored hazardous waste in unlicensed areas by violating the requirements for a license exemption in these areas under Wis. Admin. Code § NR 662.034(1)-(3). EPA has identified the license exemption requirements violated by Hydrite in paragraphs 1-4, below.

EPA has also determined that Hydrite has violated certain conditions of its FPOR as described in paragraphs 5-9, below.

Lastly, EPA has determined that Hydrite violated RCRA requirements related to hazardous waste determinations as described in paragraph 10, below.



## STORAGE OF HAZARDOUS WASTE WITHOUT APPLYING FOR A LICENSE MODIFICATION

### 1. Date When Each Period of Accumulation Begins

Under Wis. Admin. Code § NR 662.034(1)(b) [40 C.F.R. § 262.34(a)(2)], the date upon which each period of accumulation begins is clearly marked and visible for inspection on each container holding hazardous waste.

At the time of the inspection, Hydrite failed to mark the following containers of hazardous waste generated by Hydrite and stored in 90-day status, with the start date of accumulation in a manner that was visible for inspection:

- Two exterior 55-gallon drums in the CE128 storage area (one drum was missing the date on a hazardous waste label, whereas the second drum was not visibly marked or labeled);
- All interior 55-gallon drums in the CE128 storage area;  
*Note:* At the time of the inspection, containers of Hydrite-generated wastes were placed on pallets, and the pallets were positioned back to back in double-wide rows in the CE128 storage area. The labels on the interior containers could not be observed. Hydrite personnel stated that the WDNR allowed the pallets to be stored back-to-back. Hydrite was unable to provide documentary evidence of WDNRs approval at that time.
- One overpack “Salvage” drum in the “Suck-Out Dock” storage area; and
- One 55-gallon drum in the warehouse of the “Badger 1/Lab Annex” storage area.

### 2. Hazardous Waste Container Labeling

Under Wis. Admin. Code § NR 662.034(1)(c) [40 C.F.R. § 262.34(a)(3)], a large quantity generator must label or clearly mark each container holding hazardous waste with the words “Hazardous Waste.”

At the time of the inspection, one 55-gallon drum holding hazardous waste in the CE 128 90-day storage area was not labeled with the words “Hazardous Waste.”

### 3. Use and Management of Containers

Under Wis. Admin. Code §§ NR 662.034(3)(a)1. and 665.0173(1) [40 C.F.R. §§ 262.34(c)(1)(i); 265.173(a)], a large quantity generator must always keep satellite containers holding hazardous waste closed during storage, except when it is necessary to add or remove waste.

At the time of the inspection, Hydrite did not close the following satellite containers holding hazardous waste, and waste was neither being added to or removed from these containers while they were open:

- One 1-gallon container of “Flammable Liquid” in a fume hood in the Back Lab;
- One 1-gallon container of “Flammable Liquid” in a fume hood in the Front Lab; and,
- One 1-quart container of “Epi Waste” in a fume hood in the Graphic Arts Lab.

#### 4. Air Emissions

Under Wis. Admin. Code §§ NR 662.034(1)(a)1. and 665.1056(1)(b) [40 C.F.R. §§ 262.34(a)(1)(i) and 265.1056(a)(2)], the cap, blind flange, plug or second valve associated with an open-ended valve or line, shall seal the open end at all times except during operations requiring hazardous waste stream flow through the open-ended valve or line.

At the time of the inspection, the cap for an open-ended waste transfer line located in the Suck-Out Dock was not in place.

**Summary of license exemption requirements:** According to the Facility Description and Operation section in the FPOR, "The accumulation of hazardous waste for less than 90 days is exempt from licensing per s. NR 662.034(1), Wis. Adm. Code and is not part of this relicensing." By violating the requirements for a license exemption as in items 1-4 above, however, Hydrite was required to apply for a permit modification of its existing Wisconsin hazardous waste storage license in order to include the otherwise exempt 90-day areas in the license. Hydrite failed to apply for such modifications. Hydrite's failure to apply for a license modification violated the requirements of Wis. Admin. Code § NR 670.42 [40 C.F.R. § 270.42].

#### VIOLATIONS OF THE CONDITIONS OF APPROVAL IN THE FPOR

5. According to Condition 1 of the Conditions of Approval in the FPOR, the storage and treatment facility shall be operated in accordance with the approved FPOR, the requirements of ch. 291, Wis. Stats., and chs. NR 660 to 670, Wis. Adm. Code.

Under Wis. Admin. Code § NR 668.50(1)(b)1. [40 C.F.R. § 268.50(a)(2)(i)], each container holding hazardous waste received from off-site must be clearly marked to identify its contents and the date on which each period of accumulation begins.

At the time of the inspection, one pallet holding four 55-gallon drums of waste was observed in a through-way not typically used for hazardous waste storage located between the CE100 Warehouse and the Suck-Out Dock. Two of these drums, which were labeled as "Hazardous Waste," were not marked with start dates of accumulation.

6. According to Condition 18 of Conditions of Approval in the FPOR, the identity and location of all stored hazardous wastes shall be known throughout the entire storage period.

At the time of the inspection, one pallet holding four 55-gallon drums of waste was observed in a through-way not typically used for hazardous waste storage located between the CE100 Warehouse and the Suck-Out Dock. Three of the drums on this pallet were labeled as containing hazardous waste. The origin, identity and potential disposition of these wastes were unknown at the time of the inspection, as the containers did not have Hydrite-generated tracking labels attached.



7. According to Condition 26 of the Conditions of Approval in the FPOR, containers shall be placed in the storage areas so that labels are visible from the aisles.

At the time of the inspection, containers of waste received at Hydrite from off-site generators were placed on pallets, and the pallets were positioned back to back in double-wide rows in the license CE100 Warehouse storage area. The labels on the interior containers could not be observed.

*Note:* At the time of the inspection, Hydrite personnel stated that the WDNR allowed the pallets to be stored back-to-back. Hydrite was unable to provide documentary evidence of WDNRs approval at that time.

8. According to Condition 36 of the Conditions of Approval in the FPOR, Hydrite shall not place hazardous waste in a tank if the wastes could cause the tank, its ancillary equipment, or the containment structure to rupture, leak, corrode, overflow or otherwise fail.

At the time of the inspection, Mr. Reinhard stated that Hydrite inadvertently overfilled tank 220 earlier in the year and caused hazardous waste to spill into the secondary containment.

*Note:* Hydrite reported the spill to the WDNR. Documentation of that report was provided for review. No further information is requested for this violation.

9. According to Condition 57 of the Conditions of Approval in the FPOR, Hydrite shall ensure that each piece of equipment subject to ch. NR 664 subch. BB, Wis. Adm. Code has a tag that clearly identifies the equipment identification number and that the tag is secured to the equipment the tag is to represent. Any alternative method for identifying or marking hazardous waste equipment subject to subch. BB shall be identified in the operating record along with the affected equipment subject to subch. BB.

At the time of the inspection, several identification tags for equipment subject to this condition were missing. For example, two tags were missing on pump equipment in the Suck-Out Dock; two tags were missing on valves in the hose manifold system ("snake pit") in the North Process Room; and tags were missing from valves on piping leading to the 400-series tank farm.

#### **HAZARDOUS WASTE DETERMINATION VIOLATION**

##### **10. Hazardous Waste Determination**

Under Wis. Admin. Code § NR 662.011[40 C.F.R. § 262.11], a generator must determine whether its waste is hazardous.

At the time of the inspection, Hydrite had not made a waste determination for capacitors and lamp ballasts, which were being managed as universal waste. Also, an unknown

liquid had accumulated in a small reservoir located underneath tank 205. A waste determination had not been made on this liquid. Hydrite therefore violated the above-referenced generator waste determination requirement.

#### AREA OF CONCERN

At the time of the inspection, a small tank was observed in the 400-series tank farm. This tank was not identified on the site map provided to EPA, and facility representatives were not able to state the purpose of the tank.

Please provide information regarding the purpose of this tank, as well as the year it was installed.

#### CONCLUSION

At this time, EPA is not requiring Hydrite to apply for a modification to its Wisconsin hazardous waste storage and treatment license so long as it immediately establishes compliance with the requirements for a license exemption outlined in paragraphs 1-4, above.

According to Section 3008(a) of RCRA, EPA may issue an order assessing a civil penalty for any past or current violation, requiring compliance immediately or within a specified time period, or both. Although this letter is not such an order or a request for information under Section 3007 of RCRA, 42 U.S.C. § 6927, we request that you submit a response in writing to us no later than 30 days after receipt of this letter documenting the actions, if any, which you have taken since the inspection to establish compliance with the above violations. You should submit your response to Brenda Whitney, U.S. EPA, Region 5, 77 West Jackson Boulevard, LR-8J, Chicago, Illinois 60604.

If you have any questions regarding this letter, please contact Ms. Whitney, of my staff, at 312-353-4796 or at [whitney.brenda@epa.gov](mailto:whitney.brenda@epa.gov).

Sincerely,



60/ Gary J. Victorine, Chief  
RCRA Branch

Enclosure

cc: Matthew Hilse – WDNR ([Matthew.Hilse@wisconsin.gov](mailto:Matthew.Hilse@wisconsin.gov))  
Michael Ellenbecker – WDNR ([Michael.Ellenbecker@wisconsin.gov](mailto:Michael.Ellenbecker@wisconsin.gov))

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, ILLINOIS 60604

Compliance Evaluation Inspection Report

**Date of Inspection:** September 21-23, 2015

**Facility Name:** Hydrite Chemical Company  
Licensed Hazardous Waste Storage Facility

**Facility Address:** 114 North Main Street  
Cottage Grove, Wisconsin 53527

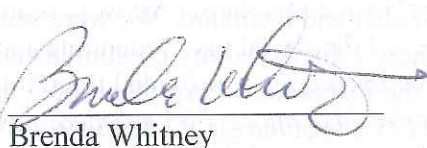
**EPA RCRA ID Number:** WID000808824

**Generator Status:** Large Quantity Generator

**Facility Contact:** Erik Reinhard  
Compliance Coordinator

**U.S. EPA RCRA Inspector:** Brenda Whitney - Environmental Engineer  
Resource Conservation and Recovery Act  
Land and Chemicals Division  
Compliance Section 2

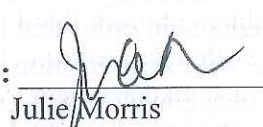
**Prepared By:**

  
Brenda Whitney  
Environmental Engineer

**Date Completed:**

10/15/15  
Month / Day / Year

**Approved By:**

  
Julie Morris  
Chief, Compliance Section 2

**Date Approved:**

10/18/15  
Month / Day / Year

Purpose of Inspection

I conducted an unannounced Compliance Evaluation Inspection (CEI) of the Hydrite Chemical Company Licensed Treatment and Storage Facility ("Hydrite") located at 114 North Main Street in Cottage Grove, Wisconsin, on September 21-23, 2015. This CEI was an evaluation of Hydrite's compliance with the conditions of their RCRA hazardous waste license as delineated

in their Feasibility and Plan of Operation Report (FPOR) dated January 9, 2013, as well as with applicable RCRA hazardous waste regulations for generators and treatment, storage, and disposal facilities (TSDFs) codified in the Wisconsin Administrative Code and the Code of Federal Regulations. Hydrite was operating as a hazardous waste recycling and storage facility and large quantity generator. Matthew Hilse of the Wisconsin Department of Natural Resources was not able to accompany me on this inspection. The following people were present for part or all of this inspection:

### **Participants**

<b>Dave Welsh</b> Environmental, Health and Safety Manager	<b>Hydrite</b>
<b>Erik Reinhard</b> Compliance Coordinator	<b>Hydrite</b>
<b>Martin Bushman</b> Building Engineer	<b>Hydrite</b>
<b>Joy Warborg</b> Associate Environmental Manager Environmental, Health, and Safety	<b>Hydrite</b>
<b>Brenda Whitney</b> Environmental Engineer	<b>EPA</b>

### **Introduction**

I arrived at the facility at approximately 1:15 p.m. on Monday, September 21<sup>st</sup>, and after signing in at the front desk, was introduced to Messrs. Welsh and Reinhard. We were seated in a conference room for an introductory meeting where I displayed my credentials and delineated the purpose, logistics, and tentative schedule of the inspection. I provided three informational handouts: *SHWEC Environmental Programs (WDNR brochure)*; *P2 Technical Assistance Contacts*; and *U.S. EPA Small Business Resources*. I informed the representatives that I would be taking hazardous waste-related photographs in the facility as necessary. Mr. Welsh stated that he would acquire a hot-work permit and follow Hydrite procedures in order that I could take photographs as needed. The representatives then provided me with a description of their recycling and manufacturing processes and of the associated waste management systems for the remainder of the afternoon. The inspection continued with a walk-through of the facility on Tuesday, September 22<sup>nd</sup>, and concluded with a records review and close-out discussion on Wednesday, September 23<sup>rd</sup>.

### **Site Description and Tour**

The following information about Hydrite is based on the personal observations of the EPA inspector and on representations made during the inspection by the Facility personnel identified above or within the text unless otherwise noted.

Hydrite is a privately-owned corporation that has twelve different locations, eight of which are in Wisconsin. This facility is situated on six acres of land with 25,500ft<sup>2</sup> for general warehousing and inorganic filling, 16,000ft<sup>2</sup> for the flammables warehouse, and 4,400ft<sup>2</sup> for the office and labs. Approximately 125 employees work two 12-hour shifts seven days a week. Another Hydrite facility with a separate EPA Identification Number is across the street. I did not inspect this second facility.

Hydrite is both a licensed storage facility for incoming wastes to be recycled as well as a large quantity generator of hazardous waste generated from various contract ("toll") manufacturing processes and from the recycling process which generates still bottoms. Approximately 80% of Hydrite's business is dedicated to toll manufacturing. The recycling process accounts for the remaining 20%.

Waste Recycling and Management: Wastes that are accepted at the facility from off-site generators are processed under one of three management method codes: H061, H020, or H141.

- H061 is fuel blending prior to sending off-site for energy recovery. This code is applicable both to wastes that are generated on-site as well as to those wastes received from off-site. This general feedstock is sold to permitted cement kilns as fuel.
- H020 is for solvent recovery via distillation, extraction, etc. Incoming wastes that fall under this method are processed at this facility in either distillation columns or thin film evaporators (also known as Luwa brand wiped film evaporators or just "Luwas"). Hydrite does not recover any of the wastes that it generates on-site. Hydrite-generated waste streams fall under the H061 method code only.
- H141 means to store, bulk, and transfer off-site waste without treatment or energy recovery. In other words, this waste has no value that can be added to the fuel blending or recycling streams at this facility. It is, therefore, sent directly off-site for disposal without any type of processing at this site.

According to Mr. Reinhard, Hydrite prefers to recycle (codes H061 and H020) as much as possible rather than sending a material off-site for disposal (code H141). Of the recycling codes, most of the time, the wastes will be processed through either the distillation column or the Luwas (H020). Occasionally, the waste can be directly input into the fuel blending tanks (H061). For example, a waste stream that is high in acetone is used directly as feedstock in the fuel blending tanks without first undergoing processing.

Approvals Process: A prospective generator of a solvent-based waste will fill out a profile form and provide a sample of the waste. The generator is also encouraged to provide analytical information or, at a minimum, SDS forms for each waste. Mr. Reinhard stated that he follows the procedures in the waste analysis plan (WAP) to review each profile to determine acceptability for processing in Hydrite's recycling system. The sample is run through a bench distillation system to determine a plant recovery estimate. They also run both a gas chromatography (GC) test to determine the concentration of volatile components of the material and a pH check to see if it falls in the range of 2.5 to 12. Hydrite's waste analysis plan does not include running a TCLP test on the samples. After the determination is made as to whether or not the material is acceptable for processing at the site, the generator is provided an identification number and each waste stream is provided with a unique profile number.

Two classes of waste are accepted for recycling at Hydrite: custom recyclable materials and general feedstock. If a customer is able to guarantee that they can generate a particular minimum volume of waste in a three-month time span, Hydrite can run that customer's material in a custom individual batch, after which the customer may purchase his own cleaned solvent back. Generators not able to guarantee large volumes have their waste processed in the general feedstock. The customer would then only be able to purchase a generic blend of solvents back from Hydrite.

Oftentimes, heavier, more contaminated waste streams such as still bottoms are not acceptable into the recycling program because they offer little recoverable solvent. However, if the bottoms contain a highly sought-after component, such as methyl ethyl ketone, it behooves Hydrite to add these materials to their recycling program.

Hazardous Waste Acceptance: Containerized wastes are accepted and staged in the CE100 Warehouse. Each container is input into an internal database. An operator will stick each drum with a coliwasa and combine the material into one small sample to determine compliance with the profile. The fingerprint sample is run on the GC and the necessary parameters are checked in accordance with the WAP. The driver of the shipment will leave prior to an analysis of the load. In the rare event that a load must be rejected, Mr. Reinhard stated that they follow procedures for either a full or partial rejection where a new manifest is cut and Hydrite becomes the generator of the waste.

Once the fingerprint passes, the operator prints in-house labels with the necessary identifiers for each drum. The labels reflect the following information which is all entered into the database: the resource number, profile number, lot number (also known as authorization number), and date of acceptance. The resource number shows whether the material is going for a custom blend or a generic feedstock. The profile number identifies each generator, and the lot number is the number assigned to each waste stream. Individual pallets are loaded into rows in the warehouse.

Bulk shipments of wastes are sampled at the unloading docks. The sample will be analyzed most likely prior to the driver leaving the facility. If the sample passes, the load is recorded on the inventory and the appropriate tracking numbers are assigned as they are for containers. The trucks then off-loaded into an assigned permitted storage tank. If the material does not meet specs, the load can be rejected back to the generator or pushed on to another TSDF for treatment. The original manifest is used for a full rejection. More often than not, however, the waste can be routed to a permitted tank and utilized in fuel blending at Hydrite.

Hazardous Waste Routing and Tracking through the Facility: The building engineer (Mr. Bushman) and the recycle coordinator or plant manager, create a work order (batch sheet) for off-site wastes that are to be processed through the Luwa or distillation column. They first determine if a batch is a custom run or a general feedstock run. If the batch is custom, only one customer profile number is processed at a time. If the batch is a feedstock run, several customer profile numbers (each with the same generic resource number) can be run at the same time. When running a feedstock batch, the engineer references the lab sheets for the chemical components in each customer's waste stream along with other pertinent information available to him, and he puts together a batch sheet for each run. He transfers this information into the

database which shows the waste streams as being "consumed." Data tracking for RCRA purposes stops at this point. Hydrite maintains a generic list of land disposal restriction numbers, however, which encompasses all waste codes applicable to bulk wastes generated by Hydrite from their own manufacturing processes and from their recycling of wastes received from off-site. This list is applied to all out-going fuels.

From their manufacturing lines and laboratory, Hydrite also generates containers of waste which are not typically mixed with outgoing fuels. Mr. Reinhard determines the applicable LDRs for these wastes based on the chemical ingredients in the product prior to shipping them off-site for treatment and disposal. These wastes are stored in satellite accumulation areas throughout the facility and in four 90-day areas.

### Site Tour

The tour took place on Tuesday, September 22<sup>nd</sup>. I watched a safety presentation and was to sign a document stating that I would abide by the rules laid out in the presentation. The document stated that photographs are not to be taken on facility premises. Mr. Welsh added a handwritten note to the document stating that I had permission to take the photographs. I then signed the document. Mr. Welsh obtained a hot-work permit so that I could use my camera in the facility.

Mr. Welsh and Mr. Reinhard accompanied me on the tour, which began in the container storage warehouse, CE100. I observed the rows of containers of incoming waste that were to be processed in the recycling units (See Appendix A: Photograph 1). The drums were stacked three-high in rows of back-to-back pallets separated by an aisles each approximately three feet wide. According to facility personnel, WDNR stated that the rows could be organized in this fashion even though it is not possible to see the interior containers for inspection. Each of the containers that I could observe were labeled as "Hazardous Waste" and marked with start dates of accumulation less than one year old. The containment area appeared to be in good condition.

This facility does not utilize a bar coding electronic log system. The containers are manually logged into a central database at the time of arrival. The operators are responsible for ensuring that the first containers placed into storage are among the first to be processed. Mr. Reinhard also combs through the database on a regular basis to determine if there are containers of inventory that have been stored for greater than three months. Though the facility is licensed to store wastes for up to one year, it is a procedural dictum to process material as quickly and efficiently as possible.

Raw materials are stored in CE100 in the center of the warehouse and the main 90-day storage area for wastes generated at the site are stored in a few rows in the warehouse designated as CE128. These containers are on back-to-back pallets like the incoming wastes mentioned above. I could not inspect the interior containers. Amidst the drums in this area that I could observe, I noticed two 55-gallon drums that were labeled as being satellite drums for transfer to fuels rather than the normal procedure of shipping the waste as-is. Mr. Reinhard was not certain why these containers appeared to be designated for fuels. Both drums were labeled as "Hazardous Waste" and were marked with start dates of accumulation. A third drum in the area was missing a start date of accumulation (See Appendix A: Photograph 2). A fourth drum in this area did not have a

visible label or any markings to indicate its contents or a start date (See Appendix A: Photograph 3).

At this point in the inspection, we returned to a conference room in the office so that I could discuss the Hydrite air emissions program with Ms. Warborg. See discussion on air emissions under the Records and Emergency Preparedness Review below.

The tour continued with Mr. Bushman, who escorted us through the recycling systems and tank storage yards. As we walked to the drum handling room ("suck-out dock"), Mr. Bushman explained how he and a coworker synthesize batch recipes, as explained above. In the suck-out dock, I observed the pump used for sucking out wastes from individual containers and transferring that waste either to a bulk storage tank (tanks 212-215, 218-221, 241, or 242), or, in the event the material is directly used for fuel blending, to tanks 401 or 402. In the event the piping to the tanks becomes blocked, an alternative pipeline can be connected. This alternative pipe system was disconnected at the time of the inspection and the open-ended line was not capped (See Appendix A: Photograph 4). Also, in looking for identification tags on the valves and pump as required under subpart BB (See Appendix A: Photographs 5 and 6), I observed at least two tags were missing from valves in the area. Throughout the inspection, as I spot-checked for tags, I noted that a few tags were missing in high-work areas that are subject to extensive manual manipulation, such as in hose connector manifolds. The facility representatives stated that they have had difficulty in maintaining tags in these areas. They also noted that they would be interested in discussing with WDNR alternative identification methods for these areas, such as posting isometric drawings.

The North Process Room houses the recycling units. Mr. Bushman walked me through the Luwa and distillation column processes from incoming wastes through outgoing product and still bottoms. I observed the hose manifolds and other equipment associated with the recycling units. I asked about knock-out pots in the area and the disposition of wastes that may be generated therein. Mr. Bushman explained that a "pot still" in the room is used as a vacuum rather than a distillation unit. He pointed out the piping from the pot still that can be connected with a hose to a knock-out pot on the mezzanine level and discharged into a generator tank. The pot still is also used to suck out any build-up in the containment trough under the "snake pit" manifold or for any other releases that may occur in the North Process Room.

The outdoor 200-series storage tanks were located east of the North Process Room. Tanks 205 and 204 are 90-day tanks, were marked "Hazardous Waste," and appeared to be in good condition as did the secondary containment. Beneath tank 205 was a small reservoir that contained a liquid. It was not known at the time of the inspection why it was full or what the material was (See Appendix A: Photograph 7). Prior to observing the eight licensed tanks, I saw two carbon filter drums in the secondary containment area that were not connected to tanks (See Appendix A: Photographs 8-10). Mr. Reinhard stated that spent carbon would be a hazardous waste. On closer inspection, however, the facility representatives determined that one drum, which was labeled with the word "Breezeway," was to be connected to trucks that off-load in this breezeway area, and so the filter was a working unit. To confirm this determination, I observed similar containers at all loading dock areas. The second container was determined to be an emergency filter for a working tank in the event the thermal oxidizer were to fail.



In order to observe the licensed tanks 212-215 and 218-221, we walked the catwalks that run between and over the tanks. Mr. Reinhard stated that they had experienced an overfill spill out of tank 220, which was still stained pink from the spill. He explained that there had been an operator error due to a malfunctioning valve that allowed waste to be offloaded into a tank that was already full rather than into the tank for which it was intended. The tanks are all linked in series. The tank for which the waste was intended was at the end of the series. The malfunctioning valve terminated the flow into the full tank further up in the series. When the high level alarms for that tank had activated, the operator thought the alarm was erroneous and dismissed it. The operator also did not notice that the level in the intended tank was not rising. Because of heavy rains that day, Hydrite had to remove 7,000 gallons of waste that had accumulated in their secondary containment. Hydrite reported the spill to the State. Documentation of that report was provided for review. Aside from the pink staining on tank 220, from above, the tanks appeared to be in good condition with all covers and vents appearing to be in working condition. I observed tanks 241 and 242 from street level. These tanks also appeared to be in good condition.

I observed the tank farm for the 400-series tanks also from street level. Tanks 401 and 402 are licensed tanks for fuel blending. Tank 405 is a low BTU hazardous wastewater that is an LQG tank. Mr. Reinhard explained that this wastewater typically is fed into the fuel stream at a relatively slow rate. On the off-chance that this material cannot be used on-site, it is sent off-site for treatment. The tanks in this area appeared to be in good condition as did the secondary containment. I asked about a small tank (capacity estimated to be less than 500 gallons) in the northwest corner of this containment area, which did not appear on the site map. The tank was not marked, and its purpose was not determined during the inspection.

The remainder of the inspection focused on container accumulation and storage areas.

- CE100 Production Area: I observed two 55-gallon drums labeled as "Hazardous Waste" that were collecting wastes generated near reactor R-12 (See Appendix A: Photograph 11). These containers were positioned next to one another though the wastes may have been incompatible. I asked Mr. Reinhard and Mr. Welsh generally about positioning drums side by side. They stated that they thought WDNR policy allowed containers holding different waste streams from different points of generation (e.g., different waste codes or rags/protective equipment vs. liquid wastes), would be considered separate satellite accumulation areas. This practice was common throughout the facility.
- En route to the suck-out dock from the CE100 Warehouse, I observed a pallet of four 55-gallon drums positioned in a through-way (See Appendix A: Photograph 12). The pallet appeared out of place as it was not near any point of generation or 90-day area. One drum contained non-hazardous waste. The remaining three drums were labeled as "Hazardous Waste." One drum was dated from 5/20/2015. The other two drums were not marked with dates. Facility personnel were not able to determine why the waste had been left in this area.
- The suck-out dock housed a 90-day storage area. In this area were two pallets of containers of different sizes including one yard sack and one salvage drum (overpack container). Also in this area were three 55-gallon drums that were set aside for collecting laboratory wastes. Two of these three drums were labeled as "Flammable, corrosive – acid" and "Flammable, corrosive – base," respectively. I asked Mr. Reinhard about

incompatibility issues with the acid and the base, and he stated that they have determined these waste streams to be compatible. All of the containers in this area were labeled as "Hazardous Waste" and marked with start dates of accumulation less than 90 days from the date of the inspection except for the salvage drum, which was not marked with a start date of accumulation. It was not known, however, if this drum was actually holding hazardous waste.

- The suck-out dock also had one satellite accumulation container for drippings associated with sucking out containers of waste. This container was closed and marked as "Hazardous Waste."
- In truck loading areas by the 100 and 400-series tanks, I observed satellite containers for truck screen cleanouts and miscellaneous wastes associated with loading and unloading trucks. The containers were labeled as "Hazardous Waste" and were closed.
- Badger 1 / Lab Annex:
  - One 55-gallon drum was located in the warehouse portion of the building outside of the laboratories. This container was marked as "Hazardous Waste" and was closed. The label was not marked with a start date of accumulation.
  - Back Lab – one 1-gallon container in a fume hood was open (funnel in opening) and labeled only as "Flammable Liquid."
  - Instrument Lab – I observed two 5-gallon carboys on the floor in this lab that were labeled as "Methanol/acetonitrile" and "THF" respectively. Mr. Reinhard stated that these containers held waste.
  - Front Lab – One 1-gallon container in a fume hood was open (funnel in the opening) and marked only as "Flammable Liquid." In a flammable proof cabinet in this lab were three 5-gallon pails of waste each closed and labeled as "Hazardous Waste."
  - Process Lab – One 5-gallon container was closed and labeled as "Hazardous Waste" and carried the waste number U041. A 35-gallon container drum in this room was closed and marked as "Hazardous Waste."
  - Graphic Arts Lab – One 35-gallon container was closed and labeled as "Hazardous Waste." In a fume hood, was one 5-gallon bucket of waste that was closed and labeled as "Hazardous Waste." One ½-gallon container was closed and labeled as "Pyridine Waste." One 1-quart container that was open (with a funnel in the opening) was labeled as "Epi Waste."
- Universal Waste storage shed (See Appendix A: Photograph 13): The wastes in this shed were all in closed containers and marked as "Universal Waste" with a descriptor of the type of waste such as lamps or batteries. I noted to Mr. Reinhard that ballasts and capacitors were not considered universal wastes but were solid wastes.
- Maintenance Shed: I did not observe any hazardous waste in this building.
- Tanker Parking Area: Tanker trucks are parked out behind the maintenance shed. According to Mr. Reinhard, none of these tankers carry hazardous waste. The area was not paved. Mr. Reinhard stated that they will be paving it in the near future. I also observed a few pallets of carbon filter drums in this area. Mr. Reinhard stated that these containers contained fresh carbon and would be put to use in the facility as needed.
- Northwest Process Area: Near the R10 reactor were two 55-gallon drums of "Hazardous Waste" side by side. One drum was for liquids and the second for solids. Both containers were closed. One 55-gallon drum labeled as "Hazardous Waste" was located near a

scrubber and pipe manifold. Two 55-gallon drums by the VP805 Exhaust pot were labeled as "Hazardous Waste." These containers were together. A 90-day area was located near Distillation Column 3. Two 55-gallon drums in this area were labeled as "Hazardous Waste" and marked with start dates of accumulation from 8/25/15 and 7/31/15.

- A 55-gallon drum was located by the "Hot Box" in the indoor breezeway between the North and South Process Rooms. This container was used to collect waste generated from a pump out station, was labeled as "Hazardous Waste," and the bung holes were closed. The top of the closed-head container appeared to bulge out slightly.
- Two 55-gallon drums were observed in the South Process Room. Both containers were closed and labeled as "Hazardous Waste." These containers were sided by side, and held two different types of waste (liquid/solid).
- Two 55-gallon drums were located next to the Pot Still in the North Process Room. Both containers were closed and labeled as "Hazardous Waste." These containers were side by side, and held two different types of waste (liquid/solid). A third 55-gallon drum in the area was specifically for "ASM" wastes. This container was closed and labeled at "Hazardous Waste." These wastes discharge to LQG tank 204.
- No waste was observed in the Control Room. However, the operators explained how the tanks, wastes, and air pollution control equipment are controlled from this room. They reset their parameters to demonstrate an alarm situation. Of note: the thermal oxidizer was running at 1509°F. The license requires a minimum temperature of 1419°F.
- Upon exiting the Control Room, I observed the used oil storage area. One 55-gallon drum of oil was labeled as "Used Oil."
- Three 55-gallon containers were observed in the North Central Process Room. Two of the containers were side-by-side near B-4 blend tank, and were closed and labeled as "Hazardous Waste." A 35-gallon drum was also in another portion of this process area behind R15. It, too, was labeled as "Hazardous Waste" and closed.
- Near the north property line by the northwest truck unloading area, are two storage tanks for raw materials. One tank was for anhydrous ammonia. I did not denote the contents of the second tank. Both tanks can connect to drums that are used as scrubbers for vapors when unloading the trucks into these tanks. It was determined at the time of the inspection that these units were still in service as scrubbers and were not wastes though they were not in use at that time.
- Satellite containers were observed at the northwest truck unloading area. Both 55-gallon drums were closed and labeled as "Hazardous Waste."

End of tour.

### **Records and Emergency Preparedness Review**

Preparedness and Prevention: These elements are discussed in the facility license. I noted that emergency equipment appeared to be in place as needed. According to facility personnel, aisle space between rows in the CE100 warehouse has been acceptable to the WDNR.

Contingency Plan: The contingency plan is in the license. Updates to the plan are sent regularly to each of the emergency responders. Mr. Reinhard had recently updated a few elements

of the plan. The updates and the certificates of service showing that these updates had been distributed were in the record.

Training: Training records were provided for review. Training is provided on a computer-based system so that people can take their required training on their own schedule. Mr. Welsh provided the 2015 training roster as well as the presentation, which was titled "Hazardous Waste Awareness Training." Each person in the facility is required to take this training. Mr. Reinhard showed me the online training system and scheduler. Job descriptions and attendant records were also available for review.

Manifests: Mr. Reinhard guided me through the manual manifest tracking records. I reviewed incoming manifests from off-site generators as well as outgoing manifests for wastes generated at Hydrite. Fuels are typically sent off-site to Essroc, Greencastle, Green America or Systech. Container wastes are shipped to Tradebe. Universal waste is sent to Lamp Recyclers and Northern Battery.

Inspections: Daily inspections are conducted and recorded for all LQG and licensed tanks as well as for 90-day container storage areas. Satellite areas are inspected on a weekly basis. Records for these inspections appeared consistent.

Tank Requirements: The hazardous waste tanks may each be older than July 14, 1986, making them existing tanks. Tank 205 is a newer tank, and is the only hazardous waste storage tank for which a tank assessment (dated January 4, 2012) was available for review.

According to the FPOR, "A September 29, 1998 letter from James R. Meverden, an independent, qualified, registered Professional Engineer (PE) verified the structural integrity and suitability of the ten (10) hazardous waste tanks for the handling of hazardous waste." These tanks would be 212-215, 218-221, 241, and 242. The FPOR also states, "A December 21, 2007 letter from Spectrum Engineering Incorporated verified that the calculations and design details are consistent with the requirements of Underwriter's Laboratories, Inc. (UL-142) [...]" for tanks 401 and 402. The two above-mentioned letters were not available for review during the inspection. Tanks 204, 205, and 405, being generator tanks only, are not addressed in the license.

All tanks are connected to an electronic monitoring system, which feeds data to a control room. Alarms are associated with this equipment. The tanks appeared to be in good condition. The secondary containment areas for the tanks also appeared to be in good condition and were empty. All tanks identified as licensed or 90-day storage tanks were labeled as "Hazardous Waste."

RCRA Air Emissions Requirements: Ms. Warborg explained the RCRA air emissions programs at the facility and provided requisite documentation including their program standard operating procedure (SOP), certification documents, and inspection records. According to Ms. Warborg, the facility is subject to all Subparts AA, BB (tanks only), and CC (tanks and containers). Hydrite certifies that they are operating all process vents subject to AA in accordance with the requirements of their Title V air permit. All process vents are

connected to a thermal oxidizer that is stack tested to a destruction efficiency above 99%. Hydrite also certifies that they are using their air program monitoring system in lieu of a RCRA monitoring program for tanks subject to Subpart CC. Both certifications were dated from 10/17/2013. Hydrite still conducts a BB program at this site as well as CC for containers. The BB program is a hybrid that incorporates the requirements of both their air permit as well as subpart BB.

An environmental contractor conducts the BB Method 21 program for Hydrite. The inspection records appeared complete and timely. The BB program involves over 13,000 individual components that are associated with hazardous waste tank systems. The WDNR has granted Hydrite permission to use isometric drawings to identify connectors and flanges rather than have physical tags to identify that equipment. Pumps, pressure relief devices, and valves are still supposed to carry the tags. The facility does not have compressors.

Closure Cost Estimates: Estimates were available for review and were up to date for closure costs, corrective action, and their pollution liability insurance policy.

### Closing Conference

The following items were discussed with Hydrite personnel at the close of the inspection:

- Confidential Business Information CBI – Facility did not claim CBI for any information discussed or gathered throughout the inspection.
- Sampling procedure for incoming containers of waste
- Air emissions requirements
- Tank assessment requirements
- Satellite accumulation area requirements
- Universal waste requirements

### List of Appendices

- Appendix A: Photographs
- Appendix B: Checklists
- Appendix C: Documents received during the inspection.



---

# Appendix A

---

## Photograph Log

---

**Inspection Date:**

September 21-23, 2015

**Facility Name and ID Number:**

Hydrite Chemical Company

WID000808824

**Inspector and Photographer:**

Brenda Whitney

Compliance Section 2

RCRA Branch

Land and Chemicals Division

**Camera Used:**

Olympus Stylus 600

Serial Number: A47525904

---





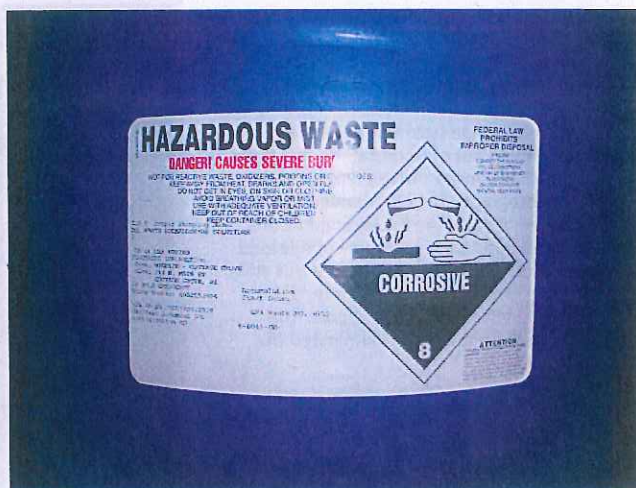
### Photograph 1

Containers are stored in rows between painted lines in the CE100 warehouse. The first row pictured is a single line. The remaining rows are double lines put back-to-back. The interior containers and labels cannot be seen for inspection.



### Photograph 2

A container in the 90-day storage area in the row CE128 of the CE100 Warehouse was not marked with a start date of accumulation.



### Photograph 3

This photograph is oriented on its left side. This container was located in the 90-day area in row CE128 of the CE100 Warehouse. The container was not visibly marked or labeled with the words "Hazardous Waste" or with a start date of accumulation.



### Photograph 4

An Alternative pipe system for directing waste pumped out of drums at the "suck-out dock" to the licensed storage tanks is shown in this photograph. The open-ended line was not capped. Also, in the background of this photograph, one can see a spray of released waste on the wall. I did not observe this stain during the inspection and therefore, did not describe it in the body of the report. The flash from the photograph illuminated the release.





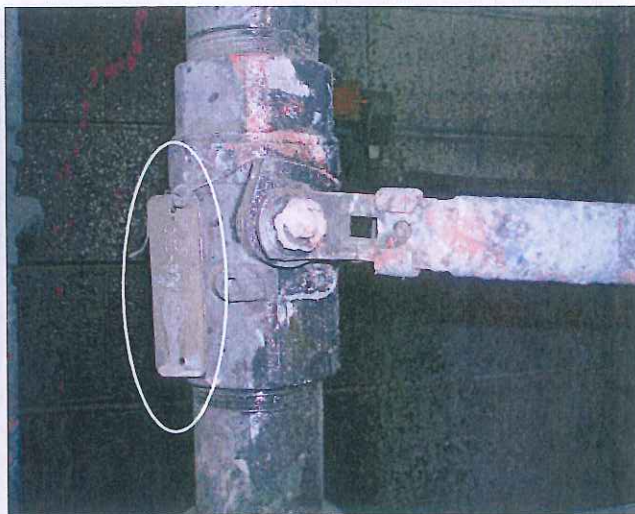
### Photograph 5

Though not confirmed during the inspection, the identification tag displaying 71B may be the Subpart BB tag for this pump. Most of the other tags in the facility were on rectangular pieces of metal and the number was punched on the tag. (White box added by Brenda Whitney for discernment).



### Photograph 6

This valve is associated with the waste transfer system in the "suck-out dock." As described in Photograph 5, above, the identification tags for Subpart BB were rectangular with punched numbers. (White oval added by Brenda Whitney for discernment).



### Photograph 7

Beneath tank 205 was a reservoir that contained a liquid. It was not known at the time of the inspection why the reservoir was full or what the liquid was.



### Photograph 8

Two carbon canisters in the 200-series tank containment area were not hooked up to a tank. These containers were, however, still in use.





### Photograph 9

This photograph is oriented on its left side.  
See the caption for Photograph 8.



### Photograph 10

The carbon drums, such as those identified in  
Photographs 8 and 9, above, each are  
equipped with conservation vents.



### Photograph 11

The satellite containers in this photograph were located in the CE100 Production Area. These containers are an example of how many satellite containers in the facility were co-located.



### Photograph 12

A pallet of four containers, three of which were labeled as "Hazardous Waste," was mistakenly placed in a through-way between the CE100 Warehouse and the "suck-out" dock. Hydrite representatives could not determine the origin of these containers during the inspection.





### Photograph 13

Universal waste was kept in an outdoor storage shed.



### Photograph 14

Near the north property line by the northwest truck unloading area, are two storage tanks for raw materials. One tank was for anhydrous ammonia. I did not denote the contents of the second tank. Both tanks can connect to drums that are used as scrubbers for vapors when unloading the trucks into these tanks. It was determined at the time of the inspection that these units were still in service as scrubbers and were not wastes though they were not in use at that time.







---

# Appendix B

---

## Checklists

---

**Inspection Date:**

September 21-23, 2015

**Facility Name and ID Number:**

Hydrite Chemical Company

WID000808824

**Inspector:**

Brenda Whitney

Compliance Section 2

RCRA Branch

Land and Chemicals Division

---





Revision: 12/03/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## LARGE QUANTITY GENERATOR INSPECTION

This Inspection Form, used for the inspection of facilities that generate over 1000 kg (2205 lbs) of non acute hazardous waste in a calendar month or over 1 kg of acute hazardous waste in a calendar month, evaluates compliance with Wisconsin's Hazardous Waste Management Rules (chapter NR 660 - 679, Wis. Admin. Code).

### Section 1: Waste Information

A. Hazardous waste determination has been made on each solid waste generated.	Y	662.011
B. Waste determination was made correctly, considering the listed waste definitions and the characteristics of the waste, in light of the materials or processes used.	Y	662.011(3)
C. Waste samples are analyzed by laboratories certified or registered under NR 149. Provide lab names and certification numbers. <i>APPEAR TO BE FOLLOWING WAP</i> <i>certified lab on-site</i>	Y	662.011(3)(a)1
D. Generator keeps records of all waste determinations on-site for at least three years from the date the waste was last sent to a storage, treatment or disposal facility.	Y	662.040(3)
E. Generator submitted a notification form and obtained an EPA ID#.	Y	662.012
Note: A subsequent notification should be submitted when there is an ownership or name change.		

### Section 2: Manifest, Pre-Transport Requirements and Off-Site Shipments

A. Generator initiated a manifest with all off-site shipments of hazardous waste.	Y	662.020(1)
B. The manifest is used according to the instructions in the appendix to 40 CFR part 262.	Y	662.020(1)
C. The facility designated on the manifest is permitted or licensed to accept the waste.	Y	662.020(2)
D. For out-of-state shipments, a copy of the manifest is sent to the department within 30 days of receiving the signed copy from the designated facility.	Y	662.023(3)
E. Manifest continuation form, EPA form 8700-22A, is prepared according to the instructions in the appendix of 40 CFR part 262.	Y	662.020(1)
F. If the generator received a shipment back as a rejected load, the returned waste was accumulated in compliance with the container or tank standards for less than 90 days.	Y	662.034(13)
G. Upon receipt of the rejected shipment, the generator signed EITHER of the following: 1. Manifest Item 18c if the transporter returned the shipment using the original manifest. 2. Manifest Item 20 if the transporter returned the shipment using a new manifest.	Y	662.034(13)
H. A copy of the manifest signed by the generator is retained until the signed copy from the designated facility is received.	Y	662.040(1)
I. Copy of each manifest is kept for at least three years from the date of shipment.	Y	662.040(1)
J. Hazardous waste is packaged according to applicable DOT requirements before transport.	Y	662.030

*According to Facility Rep*

Code/Stat ? : C: Compliance CA: Compliance with Concern R: Returned to Compliance X: Non-Compliance NA: Inspected, Not Applicable ND: Inspected, Not Determined NI: Not Inspected  
Noncode ? : Y: Yes N: No UN: Unknown

Notes : \*: Dept. approved alternate may apply No 'box' is an open ended question

Page 1 of 14

d\_report\_inspection\_print\_ff





Revision: 12/03/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## LARGE QUANTITY GENERATOR INSPECTION

### Section 2: Manifest, Pre-Transport Requirements and Off-Site Shipments

K. Hazardous waste is labeled according to applicable DOT requirements before transport.	Y	662.031
L. Hazardous waste is marked according to applicable DOT requirements before transport.	Y	662.032(1)
M. Containers of 119 gallons and less are marked with the "Hazardous Waste-Federal law prohibit improper disposal" label before transport.	Y	662.032(2)
N. Placards are offered to the initial transporter.	Y	662.033

### Section 3: Land Disposal Restrictions

A. Generator determined if each waste is prohibited from land disposal by lab analysis or generator knowledge.	Y	668.07(1)
B. Generator complies with the prohibition against dilution of wastes.	Y	668.03
C. A one-time written notice was sent to each treatment, storage or disposal facility with the initial waste shipment.	Y	668.07(1)
D. A new notification is sent to the TSD and maintained in the generator file when the waste or receiving facility changes.	Y	668.07(1)
E. If the waste MEETS treatment standards, the LDR notice certifies wastes may be land disposed without further treatment.	N/A	668.07(1)
F. If the waste EXCEEDS treatment standards, the LDR notice gives notification of appropriate treatment and applicable prohibitions.	Y	668.07(1)
G. A copy of the LDR notifications and certifications are retained for at least 3 years from the date the waste was last sent off-site.	Y	668.07(1)(h)
H. Underlying hazardous constituents have been identified for characteristic wastes.	<del>Y</del> <i>Bractley under Primary</i> <i>Code</i>	668.09(1)
I. Generator identifies EITHER of the following when the waste is both a listed and characteristic waste: 1. The treatment standards for the listed waste code, in lieu of the treatment standard for the characteristic waste codes. 2. The treatment standards for all applicable listed and characteristic waste codes.	Y	668.09(2)
J. If waste is treated in containers or tanks, the generator meets BOTH of the following (NR 668.07(1)(e): 1. Developed a written waste analysis plan describing the procedures used to meet applicable LDR treatment standards. 2. Complies with the certification requirements in NR 668.07(1)(c).	Y	662.034(1)(d)

Code/Stat ? : C: Compliance CA: Compliance with Concern R: Returned to Compliance X: Non-Compliance NA: Inspected, Not Applicable ND: Inspected, Not Determined NI: Not Inspected

Noncode ? : Y: Yes N: No UN: Unknown

Notes : \*: Dept. approved alternate may apply

No 'box' is an open ended question

Page 2 of 14

d\_report\_inspection\_print\_ff





Revision: 12/03/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## LARGE QUANTITY GENERATOR INSPECTION

### Section 4: Annual Reports and Exception Reporting

A. Annual reports covering generator activities during the calendar year have been submitted to the Department by March 1 of the following year.	Y	662.041
B. Transporter or TSD is contacted if signed manifest is not received in 35 days.	Y	662.042(1)
C. Exception report is submitted to the Department if a signed manifest is not received within 45 days.	N/A	662.042(2)
D. Copy of each annual report and exception report is kept for at least 3 years from the date of the report.	Y	662.040(2)

### Section 5: Preparedness and Prevention

A. Generator has ALL of the following, unless the equipment is not necessary for the types of wastes handled (NR 665.0032): 1. Device to summon emergency assistance (e.g., telephone, 2 way radio). 2. Internal communications and alarm systems. 3. Portable fire extinguishers. 4. Fire control equipment, including special extinguishing equipment. 5. Spill control equipment. 6. Decontamination equipment (e.g., eyewash, shower). 7. Water at adequate volume and pressure to supply water spray systems.	Y	662.034(1)(d)
B. All of the above emergency equipment is tested and maintained to assure its proper operation in an emergency (NR 665.0033).	Y	662.034(1)(d)
C. There is immediate access to internal or external alarms or an emergency communication device in hazardous waste handling areas (NR 665.0034).		662.034(1)(d)
D. Generator has made ALL of the following arrangements with emergency organizations (NR 665.0037): 1. Primary and support roles have been defined if multiple police and fire departments could respond to an emergency. 2. Police, fire and emergency response teams are familiar with the site layout, hazards of the waste handled, places where personnel work, entrances and roads in the site and possible evacuation routes. 3. Agreements are made with emergency response contractors and equipment suppliers. 4. Local hospitals are familiar with the properties of wastes handled and the types of injuries or illnesses that could result from an emergency.	Y	662.034(1)(d)
E. Aisle space provided throughout the facility to allow for the unobstructed movement of personnel and all emergency equipment (NR 665.0035).	Y*	662.034(1)(d)

*\*Special circumstance allowed by waste*

### Section 6: Contingency Plan and Emergency Procedures

A. Generator has a written contingency plan, amended SPCC plan or other emergency plan that will be implemented immediately in the event of a fire, explosion or hazardous waste discharge (NR 665.0051). If there is no written plan go to question 7.A.	Y	662.034(1)(d)
---	---	---------------





Revision: 12/03/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## LARGE QUANTITY GENERATOR INSPECTION

### Section 6: Contingency Plan and Emergency Procedures

B. Generator has amended a SPCC plan or other emergency plan so it sufficiently incorporates hazardous waste management provisions (NR 665.0052(2)).	Y/A	662.034(1)(d)
C. Copies of the contingency plan and all revisions have been made available to police, fire, hospital and emergency response teams. (NR 665.0053(2)).	Y	662.034(1)(d)
D. Contingency plan was amended due to ANY of the following (NR 665.0054): 1. Contingency plan failed in an emergency. 2. Change in site design, construction, O&M, or other circumstances which affect emergency response. 3. Emergency coordinators changed. 4. Emergency equipment changed.	Y	662.034(1)(d)
E. Contingency plan identifies an emergency coordinator who meets ALL of the following (NR 665.0055): 1. Available or on call to coordinate emergency response measures. 2. Familiar with all aspects of site activities and the contingency plan. 3. Has authority to commit the resources needed to carry out the contingency plan.	Y	662.034(1)(d)
F. Contingency plan includes ALL of the following (NR 665.0052): 1. Designation of the primary emergency coordinator, with alternates listed in the order of assuming responsibility. 2. Name, address and phone number, office and home, for each emergency coordinator. 3. Description of the arrangements agreed to by the police, fire, hospitals and emergency response teams to coordinate emergency services. 4. Evacuation plan for personnel including signal(s) to be used in the event of evacuation and alternate routes. 5. Actions facility personnel will take in response to a fire, explosion, or hazardous waste discharge. 6. List of emergency equipment at the site, including location, description and capabilities of each item.	Y	662.034(1)(d)
G. Contingency plan requires the emergency coordinator to do ALL of the following in the event of a fire, explosion, or discharge of hazardous wastes (NR 665.0056): 1. Activate internal alarms or communication systems. 2. Notify appropriate authorities, if their help is needed. 3. Identify the character, source, amount, and extent of discharged hazardous materials. 4. Assess hazards to human health and the environment. 5. If the incident threatens human health or the environment outside the facility, notify local authorities that evacuation may be necessary and notify the national response center (800-424-8802) and the division of emergency government (800-943-0003). 6. Take all reasonable measures necessary to ensure fires, explosions and discharges do not occur, reoccur, or spread. 7. Monitor for leaks, pressure buildup, gas generation or ruptures in valves, pipes, or other equipment if the site stops operation. 8. Provide for treating, storing, or disposing of recovered waste, contaminated soil, surface water, or other material. 9. Ensure wastes that are incompatible with the released material are not treated, stored or disposed until cleanup is completed. 10. Ensure that emergency equipment is clean and fit for use prior to resuming operations. 11. Notify the department and appropriate state and local authorities before resuming operations. 12. Submit an incident report to the department within 15 days.	Y	662.034(1)(d)





Revision: 12/03/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## LARGE QUANTITY GENERATOR INSPECTION

### Section 7: Personnel Training Requirements

A. Generator has a program of classroom instruction or on-the-job training for personnel in hazardous waste management (NR 665.0016(1)(a)). If there is no training program go to question 8.A.	Y	662.034(1)(d)
B. Program is directed by a person trained in hazardous waste management procedures (NR 665.0016(1)(b)).	Y	662.034(1)(d)
C. Program teaches facility personnel hazardous waste management procedures relevant to the positions in which they are employed (NR 665.0016(1)(b)).	Y	662.034(1)(d)
D. Training program ensures personnel are able to respond effectively to emergencies by familiarizing them with the following applicable items (NR 665.0016(1)(c)): 1. Contingency plan implementation. 2. Procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment. 3. Key parameters for automatic waste feed cut-off systems. 4. Communications and alarm systems. 5. Response to fires or explosions. 6. Response to groundwater contamination incidents. 7. Shutdown of operations.	Y	662.034(1)(d)
E. New employees are trained within 6 months of their assignment (NR 665.0016(2)).	Y	662.034(1)(d)
F. Employees work in supervised positions until they have completed the training (NR 665.0016(2)).	Y	662.034(1)(d)
G. Personnel take part in an annual review of the training (NR 665.0016(3)).	Y	662.034(1)(d)
H. Generator keeps ALL of the following training documents (NR 665.0016(4)): 1. Job title and the employee name for each position related to hazardous waste management. 2. Job description for each of the above job titles. 3. Description of the amount and type of introductory and continuing training that will be given to each employee. 4. Records that required training has been given to each employee.	Y <i>trained w/ Web-based program</i>	662.034(1)(d)
I. Training records are maintained until closure for current personnel and at least 3 years from the date the employee last worked at the facility (NR 665.0016(5)).	Y	662.034(1)(d)

### Section 8: 90-Day Container Accumulation

A. Waste is accumulated in containers. If NO, go to Section 9.	Y	
B. Accumulation start date is clearly marked and visible for inspection on each container.	N	662.034(1)(b)
C. All containers are clearly marked with the words "Hazardous Waste".	Y	662.034(1)(c)



Revision: 12/03/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## LARGE QUANTITY GENERATOR INSPECTION

### Section 8: 90-Day Container Accumulation

D. If container is leaking or in poor condition, the contents are transferred to another container in good condition (NR 665.0171).	Y	662.034(1)(a)1
E. Containers are made of or lined with materials that are compatible with the waste (NR 665.0172).		662.034(1)(a)1
F. Containers are kept closed, except when it is necessary to add or remove waste (NR 665.0173(1)).		662.034(1)(a)1
G. Containers are opened, handled or stored to prevent leaks or ruptures (NR 665.0173(2)).		662.034(1)(a)1
H. Container storage areas are inspected weekly for leaks and deterioration (NR 665.0174).		662.034(1)(a)1
I. Containers of ignitable or reactive waste are located at least 50 feet from the property line (NR 665.0176).		662.034(1)(a)1
J. Containers of incompatible wastes are separated or protected from each other by a physical barrier (dike, berm, wall or other device) (NR 665.0177(3)).	N/A	662.034(1)(a)1
K. Incompatible wastes are stored in separate containers unless the mixing will not generate extreme heat, fire, explosion, toxic gases or other dangers (NR 665.0177(1)).	N/A	662.034(1)(a)1
L. Containers that previously held waste are properly washed before adding incompatible waste, unless the mixing will not generate extreme heat, fire, explosion, toxic gases or other dangers (NR 665.0177(2)).	N/A	662.034(1)(a)1

### Section 9: Subchapter BB Standards for Equipment Leaks

A. Generator operates any of the following equipment containing or contacting hazardous wastes with organic concentration $\geq 10\%$ by weight. If NO, go to Section 10 (NR 662.034(1)(a), NR 665.1050(2)). 1. Pumps in light liquid service. 2. Compressors. 3. Pressure relief devices in gas or vapor service. 4. Sampling connection systems. 5. Open-ended valves or lines. 6. Valves in gas or vapor service or in light liquid service. 7. Pumps or valves in heavy liquid service. 8. Pressure relief devices in light liquid or heavy liquid service. 9. Flanges or other connectors.	Y	
B. Equipment listed in Question 9.A. is excluded from subch. BB requirements because it is in vacuum service and individually listed in the facility operating record by an identification number (NR 665.1050(4), NR 665.1064(7)(e)).	N/A	662.034(1)(a)
C. Equipment listed in Question 9.A. is excluded from subch. BB requirements because it operates $< 300$ hours per calendar year and is identified, either by list or location (area or group), in the facility operating record. (NR 665.1050(5), NR 665.1064(7)(f)).	N/A	662.034(1)(a)

(Distillation column - Yes)

Code/Stat ? : C: Compliance CA: Compliance with Concern R: Returned to Compliance X: Non-Compliance NA: Inspected, Not Applicable ND: Inspected, Not Determined NI: Not Inspected

Noncode ? : Y: Yes N: No UN: Unknown

Notes : \*: Dept. approved alternate may apply

No 'box' is an open ended question

Page 6 of 14

d\_report\_inspection\_print\_ff





Revision: 12/03/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## LARGE QUANTITY GENERATOR INSPECTION

### Section 9: Subchapter BB Standards for Equipment Leaks

D. If the facility determines compliance with subch. BB by documenting compliance with Clean Air Act requirements, the documentation is readily available as part of the operating record (NR 665.1064(13)).	N/A	662.034(1)(a)
E. ALL of the following information used to determine the applicability of exclusions in Questions 9.B. - 9.D. is maintained at the facility (NR 665.1064(11)): 1. Analysis determining the design capacity of the hazardous waste management unit. 2. Statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to subch. BB and an analysis determining whether these hazardous wastes are heavy liquids. 3. Up-to-date analysis and the supporting information used to determine whether or not equipment is subject to subch. BB.	Y	662.034(1)(a)
F. When knowledge of the nature of the hazardous waste stream or the process by which it was produced is used to determine the applicability of the exclusions, supporting documentation such as the following are maintained at the facility (NR 665.1064(11)): 1. Information that the production process does not use organic compounds. 2. The process is identical to a process at another facility where the total organic content was measured at <10%. 3. The process has not changed to affect the total organic concentration of the waste.	N/A	662.034(1)(a)
G. The facility keeps records of new determinations performed when there are any changes that could result in an increase in the total organic content of the waste in contact with equipment that is not subject to subch. BB requirements (NR 665.1064(11)).	N/A	662.034(1)(a)
H. All equipment stated in Question 9.A. is excluded from additional subch. BB requirements. If NO, complete the subch. BB inspection form.	NO	

### Section 10: Subchapter CC Level 1 Container Standards

A. The facility manages hazardous waste in containers with EITHER of the following design capacities. If NO, go to Question 11.A. (NR 665.1087(2)(a), NR 662.034(1)(a)1). 1. Between 26 and 119 gallons. 2. Greater than 119 gallons and not in light material service.	Y	
B. Containers are exempt from CC regulation because of ALL of the following (NR 662.034(1)(a)1, NR 665.1083(3)(a), NR 665.1084(1)(a)1, NR 665.1083(3)(a), NR 665.1084(1)(a)2., NR 665.1084(1)(b)): 1. The average VO concentration at the point of origination is <500 ppmw for all hazardous waste entering the container. 2. The initial determination of the average VO concentration for the waste stream was made before the material was placed in the container. 3. The initial determination is reviewed and updated at least once every 12 months. 4. A new waste determination is performed whenever changes to the source generating the waste stream likely causes the average VO concentration to increase to >= 500 ppmw. 5. The average VO concentration is determined by direct measurement or by knowledge. Note: See NR 665.1084(1)(c) for direct measurement procedures and NR 665.1084(1)(d) for using knowledge.	N/A	
C. For each waste determination, the date, time, and location of each waste sample collected are maintained in the facility records (NR 665.1090(6)(a)).	N/A	662.034(1)(a)1
D. Containers are excluded from subch. CC because they are used to store or treat hazardous waste from organic peroxide manufacturing processes (NR 662.034(1)(a)1, NR 665.1080(4)).  Note: Certain records are to be maintained. Refer to 665.1090(9) for more information.	N/A	

LQG waste  
- Dec containers all  
closed

Code/Stat ? : C: Compliance CA: Compliance with Concern R: Returned to Compliance X: Non-Compliance NA: Inspected, Not Applicable ND: Inspected, Not Determined NI: Not Inspected

Noncode ? : Y: Yes N: No UN: Unknown

Notes : \*: Dept. approved alternate may apply

No 'box' is an open ended question

Page 7 of 14

d\_report\_inspection\_print\_if



Revision: 12/03/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## LARGE QUANTITY GENERATOR INSPECTION

### Section 10: Subchapter CC Level 1 Container Standards

E. Containers are excluded from subch. CC because they are used solely to store or treat EITHER of the following (NR 662.034(1)(a)1, NR 665.1080(2), NR 665.1090(10)): 1. On-site remediation wastes generated through NR 700 or RCRA corrective action activities. 2. Radioactive mixed wastes in accordance with NRC requirements	NA	
F. Containers are excluded from subch. CC because BOTH of the following are met (NR 665.1080(2), NR 665.1090(10)): 1. They are equipped with air emission controls operated in accordance with the Clean Air Act requirements. 2. Facility records include certification of such by the owner or operator and the specific air program compliance requirements for the containers	NA	
G. All containers are excluded from subch. CC Level 1 standards. If YES, go to Section 11.	NA	
H. Any of the following controls are used on all Level 1 containers (NR 665.1087(3)(a)): 1. Container meets applicable US DOT packaging requirements. 2. A cover and closure devices form a continuous barrier over the container openings such that when they are secured, there are no visible holes, gaps or other open spaces into the container. 3. An organic-vapor suppressing barrier is placed on or over the hazardous waste in an open-top container so that the hazardous waste is not exposed to the atmosphere.  Note: Level 1 standards do not apply to satellite accumulation or RCRA empty containers.	Y	662.034(1)(a)1
I. If Level 1 containers do not meet applicable US DOT packaging requirements, they are equipped with covers and closure devices composed of suitable materials that minimize exposure of hazardous waste to the atmosphere and maintain integrity of the covers and closure devices (NR 665.1087(3)(b)).	N/A	662.034(1)(a)1
J. If a Level 1 container is filled to the final level in one continuous operation, the closure device is promptly secured in the closed position when the filling operation is concluded (NR 665.1087(3)(c)1.a).	Y	662.034(1)(a)1
K. If a Level 1 container is batch filled, the closure device is promptly secured in a closed position when the container is filled to the intended final level OR the batch loading is completed and any of the following first occurs (NR 665.1087(3)(c)1.b): 1. No additional material will be added within 15 minutes. 2. The person performing the loading operation leaves the immediate vicinity of the container. 3. The process generating the waste shuts down.	Y	662.034(1)(a)1
L. If a Level 1 container is opened to remove hazardous waste, the closure device is secured in the closed position upon completion of a batch removal AND when either of the following first occurs (NR 665.1087(3)(c)2b): 1. No additional materials will be removed within 15 minutes. 2. The person removing the waste leaves the immediate vicinity of the container.	Y	662.034(1)(a)1
M. If access to the inside of a Level 1 container is needed to perform routine activities other than the transfer of hazardous waste (e.g., sampling), the closure device is secured in the closed position promptly after completing the activity (NR 665.1087(3)(c)3).	Y	662.034(1)(a)1
N. If a Level 1 container is equipped with a pressure relief device that vents to the atmosphere, ALL of the following conditions are met (NR 665.1087(3)(c)4): 1. The device is designed to operate with no detectable organic emissions (< 500 ppmv) when in the closed position. 2. The device is closed when the internal pressure is within the specified operating range. 3. The device opens and vents to the atmosphere only for the purpose of maintaining internal pressure according to the design specifications.	N/A	662.034(1)(a)1





Revision: 12/03/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## LARGE QUANTITY GENERATOR INSPECTION

### Section 10: Subchapter CC Level 1 Container Standards

O. Safety valves are only opened to avoid an unsafe condition (NR 665.1087(3)(c)5).	N/A	662.034(1)(a)1
P. When a defect is detected, initial repair efforts are made within 24 hours of detection and completed within 5 calendar days (NR 665.1087(3)(d)3).	N/A	662.034(1)(a)1
Q. If repairs cannot be completed in 5 days of detecting the defect, the waste is removed from the container which is not used until it is repaired (NR 665.1087(3)(d)3).	N/A	662.034(1)(a)1

### Section 11: Subchapter CC Level 2 Container Standards

A. The facility manages hazardous waste containers with a design capacity >119 gallons that are in light material service. If NO, go to Section 12.	N/A	
B. Any of the following controls are used on Level 2 containers: (NR 665.1087(4)(a)) 1. Container meets applicable US DOT packaging requirements. 2. Each potential leak interface where organic vapor leakage could occur on the container, cover and closure device has been checked to determine that no detectable organic emissions (< 500 ppmv) are occurring. 3. The facility has demonstrated within the last 12 months that the containers are vapor-tight using Method 27 in appendix A of 40 CFR part 60.	N/A	662.034(1)(a)2
C. If the potential leak interface on the containers were checked, BOTH of the following were met: (NR 665.1087(4)(a)) 1. Checks were made on the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and, the sealing seat interface on a spring-loaded, pressure-relief valve. 2. The test was performed when the container was filled with a material having a VO concentration representative of the hazardous waste expected to be stored in the container.	N/A	662.034(1)(a)2
D. The facility maintains a copy of the procedure used to determine that containers >119 gallons in size that do not meet DOT requirements are not managing hazardous waste in light material service. (NR 665.1087(3)(e))	N/A	662.034(1)(a)2
E. Level 2 controls are used when transferring waste in or out of the container that minimize exposure to the atmosphere (submerged-fill pipe, vapor-recovery system, etc.) to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices. (NR 665.1087(4)(b))	N/A	662.034(1)(a)2
F. If the container is filled to the final level in one continuous operation, the closure devices are promptly secured in the closed position when the filling operation is concluded. (NR 665.1087(4)(c)1.a.)	N/A	662.034(1)(a)2
G. If the container is batch filled, the closure devices are promptly secured in a closed position upon filling the container to the intended final level, or when the batch loading is completed and ANY of the following first occurs: (NR 665.1087(4)(c)1.b.) 1. No additional material will be added within 15 minutes. 2. The person performing the loading operation leaves the immediate vicinity of the container. 3. The process generating the waste shuts down.	N/A	662.034(1)(a)2
H. If containers are opened to remove hazardous waste, closure devices are secured in the closed position upon completion of a batch removal and either of the following first occurs: (NR 665.1087(4)(c)2.b.) 1. No additional materials will be removed within 15 minutes. 2. The person removing the waste leaves the immediate vicinity of the container.	N/A	662.034(1)(a)2





Revision: 12/03/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## LARGE QUANTITY GENERATOR INSPECTION

### Section 11: Subchapter CC Level 2 Container Standards

I. If access to the inside of the container is needed to perform routine activities other than the transfer of hazardous waste (e.g., sampling), the closure device is secured in the closed position promptly after completing the activity. (NR 665.1087(4)(c)3.)	N/A	662.034(1)(a)2
J. If the container is equipped with a pressure relief device that vents to the atmosphere, the device meets ALL of the following conditions: (NR 665.1087(4)(c)4.) 1. Designed to operate with no detectable organic emissions when in the closed position. 2. Closed when the internal pressure is within the specified operating range. 3. Opens and vents to the atmosphere only for the purpose of maintaining internal pressure according to the design specifications.	N/A	662.034(1)(a)2
K. Safety valves are only opened to avoid an unsafe condition. (NR 665.1087(4)(c)5.)	N/A	662.034(1)(a)2
L. When a defect is detected, initial repair efforts are made within 24 hours of detection. (NR 665.1087(4)(d)3.)	N/A	662.034(1)(a)2
M. Repairs are completed within 5 days, or the waste is removed from the container which is not used until the defect is repaired. (NR 665.1087(4)(d)3.)	N/A	662.034(1)(a)2

### Section 12: Subchapter CC Level 3 Container Standards

A. The facility manages hazardous waste in containers having a design capacity >26 gallons during a waste stabilization process when hazardous waste is exposed to the atmosphere. If NO, go to Section 13.	N/A	
B. The container is vented directly through a closed-vent system to a control device, or the container is vented inside an enclosure which is exhausted through a closed-vent system to a control device. (NR 665.1087(5)(a))	N/A	662.034(1)(a)2
C. If the container is vented inside an enclosure, the enclosure is operated according to the criteria for permanent total enclosures found in Method 204 in appendix M of 40 CFR part 51. (NR 665.1087(5)(b)1.)	N/A	662.034(1)(a)2
D. Records for the most recent set of calculations and measurements verifying the enclosure meets the criteria for a permanent total enclosure in Method 204 in appendix M of 40 CFR part 51 are maintained at the facility. (NR 665.1090(4)(a))	N/A	662.034(1)(a)2
E. Level 3 controls are used when wastes are transferred in or out of the container that minimize exposure to the atmosphere (e.g., submerged-fill pipe, vapor-recovery system, etc.) to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices. (NR 665.1087(5)(f))	N/A	662.034(1)(a)2

### Section 13: Satellite Accumulation

A. Waste is accumulated in satellite accumulation areas. If NO, go to Section 14.	Y	
B. Generator accumulates no more than 55 gallons of hazardous waste or 1 quart of acute hazardous waste in each satellite area. <i>According to facility, WDNR MAY ALLOW 55 if different waste streams</i>	Y	662.034(3)(a)
C. Satellite containers are under the control of the operator of the process generating the waste.	Y	662.034(3)(a)

Code/Stat ? : C: Compliance CA: Compliance with Concern R: Returned to Compliance X: Non-Compliance NA: Inspected, Not Applicable ND: Inspected, Not Determined NI: Not Inspected

Noncode ? : Y: Yes N: No UN: Unknown

Notes : \*: Dept. approved alternate may apply

No 'box' is an open ended question



Revision: 12/03/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## LARGE QUANTITY GENERATOR INSPECTION

### Section 13: Satellite Accumulation

D. Containers are made of or lined with materials that are compatible with the waste (NR 665.0172).	Y	662.034(3)(a)1
E. If a container is leaking or in poor condition, the contents are transferred to another container in good condition (NR 665.0171).	Y	662.034(3)(a)1
F. Containers are kept closed except when it is necessary to add or remove waste (NR 665.0173(1)).	N	662.034(3)(a)1
G. Containers are marked "Hazardous Waste" or with other words that identify the contents.	N	662.034(3)(a)2
H. Container holding the excess waste is marked with the date the excess amount begins accumulating.	Y <i>According to Facility</i>	662.034(3)(b)
I. Generator complies with the 90 day accumulation requirements with respect to the excess amount within 3 days of it being generated.		662.034(3)(b)

### Section 14: Waste Minimization

A. Generator includes waste minimization information in the annual report.	Y	662.041(3)(e)
B. Generator has a program in place to reduce the volume or quantity and toxicity of waste to an economically practicable degree.	Y	662.027(1)
Note: The inspector should look for evidence justifying the generator's waste minimization certification on the manifest. Also, EPA guidance recommends that the generator have a written waste minimization/pollution prevention plan.		

### Section 15: Used Oil

A. Used oil is managed on-site. If NO, go to Section 16	Y	
B. Used oil containing $\geq 1,000$ ppm halogens is managed as listed hazardous waste or the rebuttable presumption requirements have been met.	NA <i>&lt; 1000 ppm TX</i>	679.10(2)(a)2
C. Used oil containers and tanks are in good condition and not leaking.	Y	679.22(2)
D. Used oil containers and tanks are marked "used oil".	Y	679.22(3)(a)
E. Transporter has an EPA ID number, except when generator self-transport or has a tolling agreement.	Y	679.24





Revision: 12/03/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## LARGE QUANTITY GENERATOR INSPECTION

### Section 15: Used Oil

F. If oil containing materials are disposed of as a solid waste, the used oil has been properly drained so there is no visible sign of free-flowing oil and a waste determination has been properly made.	NA	679.10(3)(a)
G. If used oil is burned in an on-site used oil-fired space heater, all of the following are met: 1. Only used oil from the generator or household do-it-yourselfers is burned. 2. The heater is designed with a maximum capacity of 0.5 million BTU per hour or less. 3. The combustion gases are vented to the ambient air.	NA	679.23
H. If used oil is accepted from others or sent off-site to be burned in a space heater, the used oil meets fuel specifications and the marketer requirements in NR 679 subch. H are met.	NA	679.11

### Section 16: Universal Waste

A. The facility is a small quantity handler of universal waste (never accumulates more than 11,025 lbs). If NO, state in the comments section if the facility is a universal waste nonhandler, large handler or destination facility, and go to Section 17.  Note: If the facility is a large handler, complete the large quantity handler of universal waste inspection form.	Y	
B. Universal waste has not been disposed, treated or diluted.  Note: Dilution or treatment does not include: sorting, mixing, discharging, regenerating, or disassembling batteries; removing batteries from consumer products or removing electrolytes; removing thermostat ampules; or, responding to a release of universal waste.	Y	673.11
C. Universal waste batteries and thermostats that are broken or show evidence of leakage or spillage are placed in closed, structurally sound containers that are compatible with the waste and not leaking. <i>According to facility/Not observed</i>	Y	673.13
D. Universal waste lamps and pesticides are placed in closed, structurally sound containers that are compatible with the waste and are not leaking.	Y	673.13
E. All universal wastes are labeled or marked "Waste" or "Used" followed by the specific type of universal waste handled or "Universal Waste".	Y	673.14
F. Universal waste is accumulated for less than one year from the date generated or received from another handler.	Y	673.15(1)
G. If universal waste is accumulated beyond one year, the handler can prove that accumulation was necessary to facilitate proper recovery, treatment or disposal.	N/A	673.15(2)
H. Length of accumulation time is demonstrated by any of the following: 1. Each container is marked or labeled with the earliest date the waste is generated or received 2. The individual item of waste is marked or labeled with the date it was generated or received. 3. An inventory system identifying the date the waste was generated or received is maintained. 4. The universal waste is placed in a specific accumulation area identified with the earliest date the waste was generated or received.	Y	673.15(3)
I. Employees are trained on the proper handling and emergency procedures appropriate to the types of waste handled at the facility.	Y	673.16



Revision: 12/03/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## LARGE QUANTITY GENERATOR INSPECTION

### Section 16: Universal Waste

J. ALL of the following are met when a release occurs: 1. Release is immediately contained. 2. A waste determination is made. 3. Spill residue is disposed of properly as solid or hazardous waste.	N/A	673.17
K. Handler sends the waste to a destination facility, foreign destination or another handler. Indicate the facilities in the comments section.	Y	673.18(1)
L. For hazardous materials, the handler packages, labels, marks, placards and prepares the proper shipping papers in accordance with DOT requirements in 49 CFR parts 172 to 180.	Y	673.18(3)
M. The following activities have occurred. If YES, complete the Universal Waste Small Quantity Handler inspection form. 1. Universal waste are sorted or disassembled. 2. Recalled pesticides are managed. 3. Universal waste shipments have been rejected. 4. Universal waste shipments have included hazardous or solid waste. 5. Universal waste is self-transported.	No	

### Section 17: F006 Wastewater Treatment Sludge

A. Generator accumulates F006 sludge for more than 90 days. If NO, go to Section 18.	N/A	
B. The F006 waste is accumulated for no more than 180 days, unless the waste is shipped 200 miles or more.	N/A	662.034(7)
C. Pollution prevention practices are in place to reduce the amount of contaminants entering the F006 waste.	N/A	662.034(7)(a)
D. The F006 waste is legitimately recycled through metals recovery.	N/A	662.034(7)(b)
E. No more than 20,000 kg (44,100 lbs) of F006 waste is accumulated on-site.	N/A	662.034(7)(c)
F. Accumulation containers meet subch. I, AA, BB and CC standards in ch. NR 665.	N/A	662.034(7)(d)1.a
G. The accumulation start date is clearly marked and visible for inspection on each container.	N/A	662.034(7)(d)3
H. Accumulation tanks meet subch. J, AA, BB and CC standards in ch. NR 665, except for NR 665.0197(3) and NR 665.0200.	N/A	662.034(7)(d)1.b
I. Each container and tank of F006 waste is clearly marked with the words "Hazardous Waste".	N/A	662.034(7)(d)4
J. A containment building used for accumulation meets subch. DD standards in ch. NR 665; a P.E. certification stating compliance with the design standards is in the operating record AND written procedures and documentation for emptying the unit within 180 days are on file.	N/A	662.034(7)(d)1.c

Code/Stat ? : C: Compliance CA: Compliance with Concern R: Returned to Compliance X: Non-Compliance NA: Inspected, Not Applicable ND: Inspected, Not Determined NI: Not Inspected  
Noncode ? : Y: Yes N: No UN: Unknown

Notes : \*: Dept. approved alternate may apply No 'box' is an open ended question



Revision: 12/03/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## LARGE QUANTITY GENERATOR INSPECTION

### Section 17: F006 Wastewater Treatment Sludge

K. The accumulation of F006 waste is included in the preparedness and prevention procedures, contingency plan and personnel training program.	N/A	662.034(7)(d)5
L. If waste is accumulated for up to 270 days, the generator must ship the waste over 200 miles for metals recovery.	N/A	662.034(8)

### Section 18: Generator Status Evaluation

A. Waste is accumulated for less than 90 days, except as allowed in Sections 13 and 16.	Y	662.034(1)
B. More than 2,205 lbs. of non-acute hazardous waste; 2.2 lbs. of acute hazardous waste; or, 220 lbs. of residue from cleanup of an acute hazardous waste spill is generated in any month (NR 662.190(1), NR 662.220(4)).	Y	
C. Describe other activities that the generator conducts at the facility (accumulation in tanks, recycling, 10-day transfer, transporter, used oil, treatment, storage, disposal, universal waste, etc.).		
D. If waste was previously accumulated in a tank system, the generator performed EITHER of the following (NR 665.0197(1), NR 665.0197(2)): 1. Closure by removing or decontaminating waste residues, contaminated containment system components, soils, structures and equipment. 2. Initiated long-term care if all contaminated soils cannot be practicably removed or decontaminated.	NA	662.034(1)(a)2





Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

This Inspection Form, used for the inspection of facilities having a hazardous waste license to store and/or treat hazardous waste, evaluates facility compliance with Wisconsin's Hazardous Waste Management Rules (chapter NR 660 - 679, Wis. Admin. Code).

### Section 1: Waste Received from Off-Site

A. Each manifest is signed and dated to certify receipt.	Y	664.0071(1)(a) Photo <input type="checkbox"/>
B. Significant manifest discrepancies are noted, if applicable.	Y	664.0071(1)(b)2 Photo <input type="checkbox"/>
C. A copy of the signed manifest is provided to the transporter.	Y	664.0071(1)(b)3 Photo <input type="checkbox"/>
D. A copy of the signed manifest is sent to the generator within 30 days.	Y	664.0071(1)(b)4 Photo <input type="checkbox"/>
E. A copy of the signed manifest is sent to the Department within 45 days.	Y	664.0071(1)(b)4 Photo <input type="checkbox"/>
F. A copy of the signed manifest is retained on-site for at least three years.	Y	664.0071(1)(b)5 Photo <input type="checkbox"/>
G. If a significant manifest discrepancy is noted, the facility attempts to reconcile the discrepancy with the generator or transporter.	Y	664.0072(3) Photo <input type="checkbox"/>
H. If there is no resolution within 15 days of receiving the waste, the facility immediately submits a letter to the Department describing the situation and a copy of the manifest.	NA	664.0072(3) Photo <input type="checkbox"/>

### Section 2: Rejected Shipments of Waste or Excess Residue in Containers

*Company Said.*

A. Facility has rejected shipments of hazardous waste or received containers with residues exceeding quantity limits for empty containers. If No, go to Section 3.	Y	 Photo <input type="checkbox"/>
B. Facility consulted with the generator before forwarding the waste to another facility.	Y	664.0072(4)(a) Photo <input type="checkbox"/>
C. Facility returns the rejected waste or residue to the generator when they can not forward the waste to an alternate facility.	Y	664.0072(4)(a) Photo <input type="checkbox"/>
D. Facility sends the waste to an alternate facility or the generator within 60 days of rejection or identifying the excess container residue.	Y	664.0072(4)(a) Photo <input type="checkbox"/>
E. Facility ensures the delivering transporter retains custody of the waste.	Y	664.0072(4)(b) Photo <input type="checkbox"/>
F. Facility provides secure, temporary custody of the waste before delivery to the first transporter.	Y	664.0072(4)(b) Photo <input type="checkbox"/>
G. Facility complies with the following if they use the original manifest to reject a full load to an alternate facility before the transporter leaves: 1. The facility forwards the rejected shipment to an alternate facility identified in Item 18b. 2. The facility keeps one copy of the manifest for their records and gives the other copies to the transporter.	Y	664.0072(5)(g) Photo <input type="checkbox"/>





Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

### Section 2: Rejected Shipments of Waste or Excess Residue in Containers

H. Facility complies with the following if they use the original manifest to return a rejected shipment to the generator before the transporter leaves:

1. Complete items 18a and 18b, using the generator's information as the alternate facility.
2. Retain one copy of the manifest and give the other copies to the transporter.

Y

664.0072(6)(g)

Photo ☐

I. Facility complies with the following if they return a rejected waste to the transporter or generator after the manifest has been signed and dated:

1. Amend their copy of the manifest by indicating the rejected waste or residue in the discrepancy space of the manifest.
2. Copy the manifest tracking number from Item 4 of the new manifest to the discrepancy space of the amended manifest.
3. Re-sign and date the manifest to certify the amended information.
4. Retain a copy of the amended manifest for at least 3 years from the date of the amendment.
5. Send a copy of the amended manifest to the transporter, generator, and department within 30 days.

Y

664.0072(7)

Photo ☐

J. Facility complies with the following for other rejected waste or residues sent to an alternate facility: *Based on generator input.*

1. Prepare a new manifest according to the appendix in 40 CFR part 262.
2. Write the generator's EPA ID #, name and address on the manifest in Items 1 and 5.
3. Write the alternate designated facility and EPA ID # in Item 8.
4. Copy the manifest tracking number in Item 4 of the old manifest to the special handling block in Item 14 and indicate the shipment is a residue or rejected waste.
5. Copy the manifest tracking number in Item 4 of the new manifest to the manifest reference number in Item 18a of the old manifest.
6. Write the DOT description in Item 9, including container types, quantity and volume of waste.
7. Sign the certification in Item 15 as the offerer of the shipment.

Y

664.0072(5)

Photo ☐

K. Facility complies with the following for other rejected waste or residues sent back to generator:

1. Prepare a new manifest according to the appendix in 40 CFR part 262.
2. Write the facility's EPA ID# in Item 1 and the generator's name and address in Item 5 of the new manifest.
3. Write the name and EPA ID# of the initial generator as the designated facility in Item 8.
4. Copy the manifest tracking number in Item 4 of the old manifest to the special handling block in Item 14 of the new manifest and indicate the shipment as a residue or rejected waste.
5. Copy the manifest tracking number in Item 4 of the new manifest to the manifest reference line in the discrepancy block of the old manifest in Item 18a.
6. Write the DOT description in Item 9, including container types, quantity and volume of waste.
7. Sign the certification in Item 15 as the offerer of the shipment.

Y

664.0072(6)

Photo ☐

### Section 3: Waste Analysis Requirements

A. Before treatment or storage, the facility obtains a detailed chemical and physical analysis of all incoming wastes. *Based on WAP*

Y

664.0013(1)(a)

Photo ☐

B. Waste samples are analyzed by laboratories certified or registered under NR 149. Provide lab names and certification numbers.

Y

664.0013(1)(a)1

Photo ☐

C. Waste analysis is repeated when EITHER of the following occurs:

1. The process generating the waste has changed.
2. The shipment received does not match the waste designated on the manifest.

Y

664.0013(1)(c)

Photo ☐

D. Facility follows the stated procedures to inspect and, if necessary, analyze each incoming waste shipment to determine if the incoming waste matches the waste specified on the manifest.

Y

664.0013(3)

Photo ☐



Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

### Section 3: Waste Analysis Requirements

E. Facility follows their written waste analysis plan by performing ALL of the following:

1. Test the waste for the stated parameters.
2. Use the stated test methods for each of the parameters.
3. Use the designated sampling methods to obtain representative samples.
4. Review or repeat the initial analysis according to stated frequencies.
5. For off-site facilities, maintain waste analysis records supplied by generators.

Y

664.0013(2)

Photo ☐

### Section 4: Waste Generated On-Site and Waste Shipments

A. A hazardous waste determination has been made on each solid waste generated.

*Capacitors/ballast*

N

662.011

Photo ☐

B. Waste samples are analyzed by laboratories certified or registered under NR 149. Provide lab names and certification numbers.

Y

662.011(3)(a)

Photo ☐

C. Waste determinations are made correctly, considering the listed waste definitions and the characteristics of the waste, in light of the materials or processes used.

*AS FAR AS I CAN TELL*

Y

662.011(3)

Photo ☐

D. Records of all waste determinations are kept on-site for at least 3 years from the date the waste was last sent to a storage, treatment or disposal facility.

Y

662.040(3)

Photo ☐

E. A manifest is initiated with all off-site shipments of hazardous waste.

Y

662.020(1)

Photo ☐

F. The manifest is used according to the instructions in the appendix to 40 CFR part 262.

Y

662.020(1)

Photo ☐

G. The facility designated on the manifest is permitted or licensed to accept the waste.

Y

662.020(2)

Photo ☐

H. For out-of-state shipments, a copy of the manifest is sent to the department within 30 days of receiving the signed copy from the designated facility.

Y

662.023(3)

Photo ☐

I. Manifest continuation form, EPA form 8700-22A, is prepared according to the instructions in the appendix of 40 CFR part 262.

Y

662.020(1)

Photo ☐

J. Copy of the manifest signed by the facility is retained until the signed copy from the designated facility is received.

Y

662.040(1)

Photo ☐

K. Copy of each manifest is kept for at least three years from the date of shipment.

Y

662.040(1)

Photo ☐

L. Transporter or TSD is contacted if the signed manifest is not received in 35 days.

Y

662.042(1)

Photo ☐

M. Exception report is submitted to the Department if signed manifest is not received within 45 days.

Y

662.042(2)

Photo ☐





Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

### Section 4: Waste Generated On-Site and Waste Shipments

N. Hazardous waste is packaged according to applicable DOT requirements before transport.	Y	662.030	Photo <input type="checkbox"/>
O. Hazardous waste is labeled according to applicable DOT requirements before transport. 7 drums in CE128	N	662.031	Photo <input type="checkbox"/>
P. Hazardous waste is marked according to applicable DOT requirements before transport. 1 drum in CE128	N	662.032(1)	Photo <input type="checkbox"/>
Q. Containers of 119 gallons and less are marked with the "Hazardous Waste-Federal law prohibit improper disposal" label before transport.	N	662.032(2)	Photo <input type="checkbox"/>
R. Placards are offered to the initial transporter.	Y	662.033	Photo <input type="checkbox"/>

### Section 5: Land Disposal Restrictions

A. Facility has determined if each waste is prohibited from land disposal by lab analysis or generator knowledge.	Y	668.07(1)	Photo <input type="checkbox"/>
B. Facility complies with the prohibition against dilution of wastes.	Y	668.03	Photo <input type="checkbox"/>
C. A one-time written notice is sent to each treatment, storage or disposal facility with the initial waste shipment.	Y	668.07(1)	Photo <input type="checkbox"/>
D. A new notification is sent to the TSD and maintained in the generator file when the waste or receiving facility changes.	Y	668.07(1)	Photo <input type="checkbox"/>
E. If the waste MEETS treatment standards, the LDR notice certifies the waste may be land disposed without further treatment.	NI	668.07(1)	Photo <input type="checkbox"/>
F. If the waste EXCEEDS treatment standards, the LDR notice gives notification of appropriate treatment and application prohibitions.	Y	668.07(1)	Photo <input type="checkbox"/>
G. Underlying hazardous constituents have been identified for characteristic wastes.	Y	668.09(1)	Photo <input type="checkbox"/>
H. Generator has identified the treatment standards for the listed waste code, in lieu of the treatment standard for the characteristic waste code, when waste is both a listed and characteristic waste OR has identified the treatment standards for all applicable listed and characteristic waste codes.	Y	668.09(2)	Photo <input type="checkbox"/>
I. Each container is clearly marked to identify its contents. 1 drum in CE128	N	668.50(1)(b)	Photo <input type="checkbox"/>
J. Each container is marked with the date on which each period of accumulation began. 2 drums in CE128 2 drums in through way by CE100 Warehouse	N	668.50(1)(b)	Photo <input type="checkbox"/>

Code/Stat ? : C: Compliance CA: Compliance with Concern R: Returned to Compliance X: Non-Compliance NA: Inspected, Not Applicable ND: Inspected, Not Determined NI: Not Inspected

Noncode ? : Y: Yes N: No UN: Unknown

Notes : \*: Dept. approved alternate may apply

No 'box' is an open ended question

Page 4 of 17

d\_report\_inspection\_print\_ff





Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

### Section 5: Land Disposal Restrictions

J. Waste is stored for 1 year or less.

Y

668.50(2)

Photo ☐

K. If waste is stored for more than 1 year, the facility can prove that storage is necessary to facilitate proper recovery, treatment or disposal.

NA

668.50(3)

Photo ☐

### Section 6: Recordkeeping and Reporting

A. An operating record is maintained at the facility.

Y

664.0073(1)

Photo ☐

B. The operating record contains ALL of the following information, as applicable:

- ✓ 1. Description and quantity of each waste received.
- ✓ 2. Method and date of each waste's treatment, storage or disposal.
- ✓ 3. Location and quantity of each hazardous waste within the facility.
- ✓ 4. Records and results of the waste analysis performed.
- ✓ 5. Summary reports and details of all incidents that required implementation of the contingency plan.
- ✓ 6. Closure cost estimates and any changes that are made in these estimates. (New 2015 Estimate)
- ✓ 7. Other monitoring, analytical data and testing, as required.
- ✓ 8. For off-site storage and treatment facilities, a copy of the LDR notice required by the generator or the owner/operator.
- ✓ 9. For on-site storage and treatment facilities, the information contained in the LDR notice, except the manifest number, required by the generator or owner/operator.

Y

664.0073(2)

Photo ☐

C. Documents in the operating record are maintained until closure of the facility.

Y

664.0073(2)

Photo ☐

D. Annual reports covering facility activities during the previous calendar year are submitted to the Department by March 1 of the following year.

Y

664.0075

Photo ☐

E. Facility submitted an unmanifested waste report within 15 days if the facility received a waste from an off-site source without an accompanying manifest or shipping paper AND the waste is not excluded from manifest requirements due to VSQG status.

NA

664.0076

Photo ☐

F. Annual reports and unmanifested waste reports are available for inspection.

Y

664.0074(1)

Photo ☐

### Section 7: Preparedness and Prevention

A. Facility is equipped with ALL of the following, unless the equipment is not necessary for the types of wastes handled:

- 1. Device to summon emergency assistance (e.g., telephone, 2 way radio).
- 2. Internal communications and alarm systems.
- 3. Portable fire extinguishers.
- 4. Fire control equipment, including special extinguishing equipment.
- 5. Spill control equipment.
- 6. Decontamination equipment (e.g., eyewash, shower).
- 7. Water at adequate volume and pressure to supply water spray systems.

Y

664.0032

Photo ☐

Foam Suppression.





## TREATMENT & STORAGE FACILITY INSPECTION

Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

### Section 7: Preparedness and Prevention

B. Emergency equipment listed in Question 7.A is tested and maintained to assure its proper operation in an emergency.

Y

664.0033

Photo ☐

C. There is immediate access to internal or external alarms or an emergency communication device in hazardous waste handling areas. *pull alarm / fire / push button*

Y

664.0034

Photo ☐

D. Facility has made ALL of the following arrangements with emergency organizations:

1. Primary and support roles have been defined if multiple police and fire departments could respond to an emergency.
2. Police, fire and emergency response teams are familiar with the facility layout, hazards of the waste handled, places where personnel work, entrances and roads in the facility and possible evacuation routes.
3. Agreements are made with emergency response contractors and equipment suppliers.
4. Local hospitals are familiar with the properties of wastes handled and the types of injuries or illnesses that could result from an emergency.

Y

664.0037

Photo ☐

E. Aisle space is provided throughout the facility to allow for the unobstructed movement of personnel and all emergency equipment.

Y

664.0035

Photo ☐

*Special W DNR Approval*

### Section 8: Contingency Plan

A. Facility has a written contingency plan that will be implemented immediately in the event of a fire, explosion or hazardous waste discharge.

Y

664.0051

Photo ☐

B. Facility amended a SPCC plan or other emergency plan so it sufficiently incorporates hazardous waste management provisions.

N/A

664.0052(2)

Photo ☐

C. Copies of the contingency plan and all revisions have been made available to police, fire, hospital and emergency response teams.

Y

664.0053(2)

Photo ☐

D. Contingency plan was amended due to ANY of the following:

1. Facility license was revised.
2. Contingency plan failed in an emergency.
3. Changes in site design, construction, O&M, or other circumstances affect emergency response.
4. Emergency coordinators changed.
5. Emergency equipment changed.

Y

664.0054

Photo ☐

E. Contingency plan identifies an emergency coordinator who meets ALL of the following:

1. Available or on call to coordinate emergency response measures.
2. Familiar with all aspects of site activities and the contingency plan.
3. Has authority to commit the resources needed to carry out the contingency plan.

Y

664.0055

Photo ☐





Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

### Section 8: Contingency Plan

F. Contingency plan includes ALL of the following:

1. Designation of the primary emergency coordinator, with alternates listed in the order of assuming responsibility.
2. Name, address and phone number, office and home, for each emergency coordinator.
3. Description of the arrangements agreed to by the police, fire, hospitals and emergency response teams to coordinate emergency services.
4. Evacuation plan for personnel including signal(s) to be used in the event of evacuation and alternate routes.
5. Actions facility personnel will take in response to a fire, explosion or hazardous waste discharge.
6. List of emergency equipment at the facility including location, description, and capabilities of each item.

Y

664.0052

Photo ☐

G. Contingency plan requires the emergency coordinator to do ALL of the following in the event of a fire, explosion, or discharge of hazardous waste:

1. Activate internal alarms or communication systems.
2. Notify appropriate authorities, if their help is needed.
3. Identify the character, source, amount, and extent of discharged hazardous materials.
4. Assess hazards to human health and the environment.
5. If the incident threatens human health or the environment outside the facility, notify local authorities that evacuation may be necessary and notify the national response center (800-424-8802) and the division of emergency government (800-943-0003).
6. Take all reasonable measures necessary to ensure fires, explosions and discharges do not occur, reoccur, or spread.
7. Monitor for leaks, pressure buildup, gas generation or ruptures in valves, pipes, or other equipment if the facility stops operation.
8. Provide for treating, storing, or disposing of recovered waste, contaminated soil, surface water, or other material.
9. Ensure wastes that are incompatible with the released material are not treated, stored or disposed until cleanup is completed.
10. Ensure that emergency equipment is clean and fit for use prior to resuming operations.
11. Notify the department and appropriate state and local authorities before resuming operations.
12. Submit an incident report to the department within 15 days.

Y

664.0056

Photo ☐

### Section 9: Security and General Inspection Requirements

A. Facility has EITHER of the following to prevent the unknowing entry and minimize the unauthorized entry of persons or livestock onto active portions of the site:

1. 24-hour surveillance system (guards, facility personnel, or television).
2. Artificial or natural barriers to control entry (fence around active portions of facility) AND a means to control entry (attendants, locked entrances or controlled roadway access).

Y

664.0014(2)

Photo ☐

B. "Danger - Unauthorized Personnel Keep Out" signs are posted at entrances and other locations.

Y

664.0014(3)

Photo ☐

C. Facility conducts inspections to determine if problems exist which could cause an environmental or human health hazard.

Y

664.0015(1)

Photo ☐

D. Inspections are conducted frequently enough to identify and correct problems before they harm human health or the environment.

Y

664.0015(1)

Photo ☐

-DAILY





Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

### Section 9: Security and General Inspection Requirements

E. Facility is following a written inspection schedule for the following equipment: 1. Monitoring equipment. 2. Safety and emergency equipment. 3. Security devices. 4. Operating and structural equipment.	Y	664.0015(2)(a) Photo <input type="checkbox"/>
F. Facility looks for problems identified in the inspection schedule during their inspections.	Y	664.0015(2)(c) Photo <input type="checkbox"/>
G. Problems are remedied on a schedule that ensures they do not lead to environmental or human health hazards.	Y	664.0015(3) Photo <input type="checkbox"/>
H. Written inspection log is maintained at the facility for at least 3 years.	Y	664.0015(4) Photo <input type="checkbox"/>
I. Inspection logs include ALL of the following: 1. Date and time of inspection. 2. Name of inspector. 3. Notation of the observations made. 4. Date and nature of repairs or remedial actions.	Y	664.0015(4) Photo <input type="checkbox"/>

### Section 10: Personnel Training Requirements

A. Facility has a program of classroom instruction or on-the-job training for personnel in hazardous waste management.	Y	664.0016(1)(a) Photo <input type="checkbox"/>
B. Program is directed by a person trained in hazardous waste management procedures.	Y	664.0016(1)(b) Photo <input type="checkbox"/>
C. Program teaches facility personnel hazardous waste management procedures relevant to the positions in which they are employed.	Y	664.0016(1)(b) Photo <input type="checkbox"/>
D. Training program ensures personnel are able to respond effectively to emergencies by familiarizing them with the following applicable items: 1. Contingency plan implementation. 2. Procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment. 3. Key parameters for automatic waste feed cut-off systems. 4. Communications and alarm systems. 5. Response to fires or explosions. 6. Response to groundwater contamination incidents. 7. Shutdown of operations.	Y	664.0016(1)(c) Photo <input type="checkbox"/>
E. New employees are trained within 6 months of their assignment.	Y	664.0016(2) Photo <input type="checkbox"/>
F. Employees work in supervised positions until they complete the training.	Y	664.0016(2) Photo <input type="checkbox"/>
G. Personnel take part in an annual review of the training.	Y	664.0016(3) Photo <input type="checkbox"/>





Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

### Section 10: Personnel Training Requirements

H. Facility keeps ALL of the following training documents:

1. Job title and the employee name for each position related to hazardous waste management.
2. Job description of each of the above job titles.
3. Description of the amount and type of introductory and continuing training that will be given to each employee.
4. Records that required training has been given to each employee.

Y

664.0016(4)

Photo ☐

I. Training records are maintained until closure for current personnel and at least 3 years from the date the employee last worked at the facility.

Y

664.0016(5)

Photo ☐

### Section 11: Ignitable, Reactive or Incompatible Waste

A. Facility treats or stores ignitable, reactive or incompatible waste. If NO, go to Section 12.

Y

Photo ☐

B. Facility takes precautions to prevent accidental ignition or reaction in the following ways:

1. Separate and protect waste from sources of ignition or reaction.
2. Confine smoking and open flame to specially designated locations.
3. Conspicuously place "No Smoking" signs where there is a hazard from ignitable or reactive wastes.

Y

664.0017(1)

Photo ☐

C. Facility treats, stores, or mixes ignitable, reactive, or incompatible wastes so that the waste does not result in any of the following:

1. Generate extreme heat or pressure, fire, or explosion, or violent reaction.
2. Produce uncontrolled toxic mists, fumes, dust or gases in sufficient quantities to threaten human health.
3. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a fire or explosion risk.
4. Damage the structural integrity of the device or facility containing the waste.
5. Otherwise threaten human health or the environment.

Y

664.0017(2)

Photo ☐

D. Containers of ignitable or reactive waste are located at least 50 feet from the property line.

Y

664.0176

Photo ☐

E. Incompatible wastes are stored in separate containers unless the mixing will not generate extreme heat, fire, explosion, toxic gases or other dangers

N/A

664.0177(1)

Photo ☐

F. Containers that previously held waste are washed before adding incompatible waste.

N/A

664.0177(2)

Photo ☐

G. Containers of incompatible wastes are separated or protected from each other by a physical barrier (dike, berm, wall or other device).

N/A

664.0177(3)

Photo ☐

### Section 12: Container Standards

A. Facility stores or treats hazardous waste in containers. If NO, go to Section 13.

Y

Photo ☐

B. If a container is leaking or in poor condition, the contents are transferred to another container in good condition.

Y

664.0171

Photo ☐



Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

### Section 12: Container Standards

C. Containers are made or lined with materials that are compatible with the waste.	Y	664.0172	Photo <input type="checkbox"/>
D. Containers are kept closed, except when it is necessary to add or remove waste.	Y	664.0173(1)	Photo <input type="checkbox"/>
E. Containers are opened, handled or stored to prevent ruptures or leaks.	Y	664.0173(2)	Photo <input type="checkbox"/>
F. Container storage areas are inspected weekly for leaks and deterioration.	Y	664.0174	Photo <input type="checkbox"/>
G. Inspections of the container storage areas are documented in an inspection log.	Y	664.0015(4)	Photo <input type="checkbox"/>
H. Base of the containment system is free of cracks and sufficiently impervious to contain leaks.	Y	664.0175(2)(a)	Photo <input type="checkbox"/>
I. Waste and accumulated precipitation are removed from the sump or collection area in a timely manner to prevent overflow of the collection system.	Y	664.0175(2)(e)	Photo <input type="checkbox"/>

*According to Facility*

### Section 13: Subchapter AA Standards for Process Vents

A. The facility conducts distillation, fractionation, thin-film evaporation, solvent extraction, air stripping operations or steam stripping operations in units managing hazardous waste. If NO, go to Section 14.	Y		Photo <input type="checkbox"/>
B. The facility has determined that the process vents are not subject to subch. AA by making an initial determination that the time-weighted, annual average total organic concentration of the waste managed in the above units is <10 ppmw by direct measurement of the organic concentration of the waste calculated as an arithmetic mean from 4 grab samples OR by knowledge of the waste.	No	664.1034(4)	Photo <input type="checkbox"/>
C. If knowledge of the waste was used, the facility maintains ANY of the following: 1. Documentation showing no organic compounds are used in the process. 2. Documentation showing that another identical process generates waste with < 10 ppmw total organic content. 3. If based on prior analysis, documentation showing there has been no change to the process that would affect total organic concentration. 4. Other similar documentation.	NA	664.1034(4)	Photo <input type="checkbox"/>
D. If the facility determined that the average total organic concentration is <10 ppmw, the determination has been made according to ALL of the following: 1. When the waste was first managed in the waste management unit or when the facility became subject to subch. AA. 2. Annually thereafter for continuously generated waste. 3. When there was a change in the waste managed or a change in the process generating or treating the waste.	NA	664.1034(5)	Photo <input type="checkbox"/>
E. The operating record includes the information used to determine that the time weighted, annual average total organic concentration managed in the waste management unit is <10 ppmw.	NA	664.1035(6)	Photo <input type="checkbox"/>



Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

### Section 13: Subchapter AA Standards for Process Vents

F. The facility has determined they are not subject to subch. AA because they have certified that all process vents are equipped with air emission controls operating according to the process vent requirements in the Clean Air Act.	Y	664.1030(5) Photo <input type="checkbox"/>
G. All process vents are excluded from subch. AA requirements because the average total organic concentration is <10 ppmw or because the vents are equipped with air emission controls. If YES, go to Section 14.	N/A	 Photo <input type="checkbox"/>
H. The total organic emissions from all process vents subject to subch. AA have been reduced to EITHER of the following: 1. Below 3 lb/hr and 3.1 tons/yr. 2. By 95 weight percent using a control device.	N/A	664.1032(1) Photo <input type="checkbox"/>
I. Vent emissions and emission reductions or total organic compound concentrations are achieved by add-on control devices that are based on engineering calculations or performance tests. <i>Therm Ox</i>	Y	664.1032(3) Photo <input type="checkbox"/>
J. When knowledge of the waste or process is used to determine if the process vent is subject to subch. AA standards, the operating log includes ALL of the following information which is based on engineering calculations or performance tests: 1. Vent emissions. 2. Emission reduction rates. 3. Total organic compound concentrations achieved by add-on control devices.	Y	664.1035(6) Photo <input type="checkbox"/>
K. The facility uses a closed-vent system and control device to reduce total organic emissions. If YES, complete the inspection form, "TSD Subch. AA & BB Standards for Closed Vent Systems and Control Devices".	Y	 Photo <input type="checkbox"/>

### Section 14: Subchapter BB Standards for Equipment Leaks

A. The facility operates any of the following equipment that contains or contacts hazardous wastes with organic concentrations $\geq 10\%$ by weight. If NO, go to Section 15. 1. Pumps in light liquid service. 2. Compressors. 3. Pressure relief devices in gas or vapor service. 4. Sampling connection systems. 5. Open-ended valves or lines. 6. Valves in gas or vapor service or in light liquid service. 7. Pumps or valves in heavy liquid service. 8. Pressure relief devices in light liquid or heavy liquid service. 9. Flanges or other connectors.	Y	 Photo <input type="checkbox"/>
B. The equipment listed in Question 14.A is excluded from subch. BB requirements because it is in vacuum service and individually listed in the facility operating record by an identification number (NR 664.1064(7)(e)).	N/A	664.1050(5) Photo <input type="checkbox"/>
C. The equipment listed in Question 14.A is excluded from subch. BB requirements because it operates < 300 hours per calendar year AND is identified, either by list or location (area or group), in the facility operating record.	N/A	664.1050(6) Photo <input type="checkbox"/>
D. If the facility determines compliance with subch. BB by documenting compliance with the Clean Air Act requirements, the documentation is readily available as part of the operating record.	N/A	664.1064(13) Photo <input type="checkbox"/>





Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

### Section 14: Subchapter BB Standards for Equipment Leaks

E. The following information used to determine the applicability of the exclusions in Questions 14.A - 14.D is recorded in the operating log:

1. Analysis determining the design capacity of the hazardous waste management unit.
2. Statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to subch. BB and an analysis determining whether these hazardous wastes are heavy liquids.
3. Up-to-date analysis and the supporting information used to determine whether or not equipment is subject to subch. BB.

N/A

664.1064(11)

Photo ☐

F. When knowledge of the nature of the hazardous waste stream or the process by which it was produced is used to determine the applicability of the exclusions, supporting documentation such as the following is recorded in the operating log:

1. Information that the production process does not use organic compounds.
2. The process is identical to a process at another facility where the total organic content was measured at <10%
3. The process has not changed to affect the total organic concentration of the waste.

N/A

664.1064(11)

Photo ☐

G. The operating log includes new determinations which are performed when changes could result in an increase in the total organic content of the waste in contact with equipment determined not to be subject to subch. BB requirements.

N/A

664.1064(11)

Photo ☐

H. All of the equipment listed in Question 14.A is excluded from additional subch. BB requirements. If NO, complete the TSD subch. BB inspection form.

No

Photo ☐

### Section 15: Subchapter CC Level 1 Standards for Containers

A. The facility manages hazardous waste in containers with EITHER of the following design capacities. If NO, go to Question 15.V (NR 664.1086(2)(a)).

1. Between 26 and 119 gallons.
2. Greater than 119 gallons that are not in light material service.

Y

Photo ☐

B. Containers are exempt from subch. CC because of ALL of the following (NR 664.1083(1), NR 664.1082(3)(a)):

1. The average VO concentration at the point of origination is <500 ppmw for all hazardous waste entering the container.
  2. The initial determination of the average VO concentration for the waste stream was made before the material was placed in the container.
  3. The initial determination is reviewed and updated at least once every 12 months.
  4. A new waste determination is performed whenever changes to the source generating the waste stream likely causes the average VO concentration to increase to 500 ppmw.
  5. The average VO concentration is determined by direct measurement or by knowledge.
- Note: See NR 665.1084(1)(c) for direct measurement procedures and NR 665.1084(1)(d) for using knowledge.

No

Photo ☐

C. For each waste determination, the date, time, and location of each waste sample collected are maintained in the facility records.

Assume > 500 ppm

NA

664.1089(6)(a)

Photo ☐

D. Containers are exempt from subch. CC because of EITHER of the following (NR 664.1082(3)):

1. The organic content of all waste entering the container has been reduced by an organic destruction or removal process described in NR 664.1082(3).
2. The hazardous organic constituents of the waste placed in the container have been treated to meet LDR standards.

No

Photo ☐





Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

### Section 15: Subchapter CC Level 1 Standards for Containers

E. Containers are excluded from subch. CC because they are used to store or treat hazardous waste from organic peroxide manufacturing processes (NR 664.1080(4)).

No

Photo ☐

Note: Certain records must be maintained. Refer to NR 664.1089(9) for more information.

F. Containers are excluded from subch. CC because they are used solely to store or treat EITHER of the following (NR 664.1080(2)):

No

Photo ☐

1. On-site remediation wastes generated through NR 700 or RCRA corrective action activities.
2. Radioactive mixed wastes in accordance with NRC requirements.

G. Containers are excluded from subchapter CC because of BOTH of the following (NR 664.1080(2), NR 664.1089(10)):

No

Photo ☐

1. They are equipped with air emission controls operated in accordance with the Clean Air Act requirements.
2. Facility records include a certification of such by the owner or operator and the specific air program compliance requirements for the containers.

H. All containers managed at the facility are excluded from subch. CC level 1 requirements. If YES, go to Question 15.V.

No

Photo ☐

I. Any of the following controls are used on all Level 1 containers subject to subch. CC:

1. Container meets applicable US DOT packaging requirements.
2. A cover and closure devices form a continuous barrier over the container openings such that when they are secured, there are no visible holes, gaps or other open spaces into the container.
3. An organic-vapor suppressing barrier is placed on or over the hazardous waste in an open-top container so that the hazardous waste is not exposed to the atmosphere.

Y

664.1086(3)(a)

Photo ☐

Note: Level 1 standards do not apply to satellite accumulation or RCRA empty containers.

J. Level 1 containers that do not meet applicable US DOT packaging requirements are equipped with covers and closure devices composed of suitable materials that result in BOTH of the following:

NA

664.1086(3)(b)

Photo ☐

1. Minimize exposure of hazardous waste to the atmosphere.
2. Maintain integrity of the covers and closure devices.

K. If a Level 1 container is filled to the final level in one continuous operation, the closure device is promptly secured in the closed position when the filling operation is concluded.

Y

664.1086(3)(c)

Photo ☐

L. If a Level 1 container is batch filled, the closure device is promptly secured in a closed position when the container is filled to the intended final level OR the batch loading is completed and any of the following first occurs:

Y

664.1086(3)(c)

Photo ☐

1. No additional material will be added within 15 minutes.
2. The person performing the loading operation leaves the immediate vicinity of the container.
3. The process generating the waste shuts down.

M. If Level 1 containers are opened to remove hazardous waste, the closure device is secured in the closed position upon completion of a batch removal AND when either of the following first occurs:

Y

664.1086(3)(c)

Photo ☐

1. No additional materials will be removed within 15 minutes.
2. The person removing the waste leaves the immediate vicinity of the container.

N. If access to the inside of a Level 1 container is needed to perform routine activities other than the transfer of hazardous waste (e.g., sampling), the closure device is secured in the closed position promptly after completing the activity.

Y

664.1086(3)(c)

Photo ☐



Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

### Section 15: Subchapter CC Level 1 Standards for Containers

*CARBON CONTAINERS  
STILL IN USE.*

O. If a Level 1 container is equipped with a pressure relief device that vents to the atmosphere, ALL of the following conditions are met: 1. The device is designed to operate with no detectable organic emissions (< 500 ppmv) when in the closed position. 2. The device is closed when the internal pressure is within the specified operating range. The device opens and vents to the atmosphere only for the purpose of maintaining internal pressure according to the design specifications.	NA	664.1086(3)(c) Photo <input type="checkbox"/>
P. Safety valves are only opened to avoid an unsafe condition.	NA	664.1086(3)(c) Photo <input type="checkbox"/>
Q. When first taking possession of a Level 1 container that will not be emptied within 24 hours, the facility visually inspects the container, cover and closure device for visible cracks, holes, gaps or other open spaces on or before the date the facility accepts the container (e.g., signs the manifest).	Y	664.1086(3)(d) Photo <input type="checkbox"/>
R. If a Level 1 container remains at the facility for one year or more, the container, its cover and closure devices are visually inspected initially and at least once every 12 months for cracks, gaps or other open spaces.	NA	664.1086(3)(d) Photo <input type="checkbox"/>
S. When a defect is detected, initial repair efforts are made within 24 hours of detection and completed within 5 calendar days.	Y	664.1086(3)(d) Photo <input type="checkbox"/>
T. If repairs cannot be completed in 5 days, the waste is removed from the container which is not used until it is repaired. <i>probed</i>	Y	664.1086(3)(d) Photo <input type="checkbox"/>
U. Inspections records for subchapter CC containers are maintained in the operating log for at least 3 years.	Y	664.0015(2)(d) Photo <input type="checkbox"/>
V. If a facility managed hazardous waste with an average VO concentration >500 ppmw or without adequate reduction of the organic content by an organic destruction or removal process in a container exempt from subch. CC level 1, 2 or 3 standards, the facility submitted a written report to the department which includes all of the following information: 1. Name of the facility, EPA ID#, and address. 2. A description of the noncompliance event and the cause. 3. The dates of noncompliance. 4. The actions taken to correct the noncompliance and prevent reoccurrence.	NA	664.1090(1) Photo <input type="checkbox"/>
W. The report in Question 15.V is submitted within 15 calendar days of the time the owner or operator becomes aware of the occurrence.	NA	664.1090(1) Photo <input type="checkbox"/>

### Section 16: Subchapter CC Level 2 Standards for Containers

A. The facility manages hazardous waste containers with a design capacity >119 gallons that are in light material service. If NO, go to Section 17.	NA	Photo <input type="checkbox"/>
B. Any of the following controls are used on Level 2 containers: 1. Container meets applicable US DOT packaging requirements. 2. Each potential leak interface where organic vapor leakage could occur on the container, cover and closure device has been checked to determine that no detectable organic emissions (< 500 ppmv) are occurring. 3. The facility has demonstrated within the last 12 months that the containers are vapor-tight using Method 27 in appendix A of 40 CFR part 60.	NA	665.1087(4)(a) Photo <input type="checkbox"/>





## TREATMENT & STORAGE FACILITY INSPECTION

### Section 16: Subchapter CC Level 2 Standards for Containers

C. If the container is vented inside an enclosure, the enclosure is operated according to the criteria for permanent total enclosures found in Method 204 in appendix M of 40 CFR part 51.	NA	665.1087(5)(b)1 Photo <input type="checkbox"/>
D. If the potential leak interface on the containers were checked, BOTH of the following were met: 1. Checks were made on the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and, the sealing seat interface on a spring-loaded, pressure-relief valve. 2. The test was performed when the container was filled with a material having a VO concentration representative of the hazardous waste expected to be stored in the container.	NA	665.1087(4)(a) Photo <input type="checkbox"/>
E. The facility maintains a copy of the procedure used to determine that containers >119 gallons in size that do not meet DOT requirements are not managing hazardous waste in light material service.	NA	665.1087(3)(e) Photo <input type="checkbox"/>
F. Level 2 controls are used when transferring waste in or out of the container that minimize exposure to the atmosphere (submerged-fill pipe, vapor-recovery system, etc.) to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices.	NA	665.1087(4)(b) Photo <input type="checkbox"/>
G. If the container is filled to the final level in one continuous operation, the closure devices are promptly secured in the closed position when the filling operation is concluded.	NA	665.1087(4)(c)1.a Photo <input type="checkbox"/>
H. If the container is batch filled, the closure devices are promptly secured in a closed position upon filling the container to the intended final level, or when the batch loading is completed and ANY of the following first occurs: 1. No additional material will be added within 15 minutes. 2. The person performing the loading operation leaves the immediate vicinity of the container. 3. The process generating the waste shuts down.	NA	665.1087(4)(c)1.b Photo <input type="checkbox"/>
I. If containers are opened to remove hazardous waste, closure devices are secured in the closed position upon completion of a batch removal and either of the following first occurs: 1. No additional materials will be removed within 15 minutes. 2. The person removing the waste leaves the immediate vicinity of the container.	NA	665.1087(4)(c)2.b Photo <input type="checkbox"/>
J. If access to the inside of the container is needed to perform routine activities other than the transfer of hazardous waste (e.g., sampling), the closure device is secured in the closed position promptly after completing the activity.	NA	665.1087(4)(c)3 Photo <input type="checkbox"/>
K. If the container is equipped with a pressure relief device that vents to the atmosphere, the device meets ALL of the following conditions: 1. Designed to operate with no detectable organic emissions when in the closed position. 2. Closed when the internal pressure is within the specified operating range. 3. Opens and vents to the atmosphere only for the purpose of maintaining internal pressure according to the design specifications.	NA	665.1087(4)(c)4 Photo <input type="checkbox"/>
L. Safety valves are only opened to avoid an unsafe condition.	NA	665.1087(4)(c)5 Photo <input type="checkbox"/>
M. When a defect is detected, initial repair efforts are made within 24 hours of detection.	NA	665.1087(4)(d)3 Photo <input type="checkbox"/>
N. Repairs are completed within 5 days, or the waste is removed from the container which is not used until the defect is repaired.	NA	665.1087(4)(d)3 Photo <input type="checkbox"/>





Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

### Section 17: Subchapter CC Level 3 Standards for Containers

A. The facility manages hazardous waste in containers having a design capacity >26 gallons during a waste stabilization process when hazardous waste is exposed to the atmosphere. If NO, go to Section 18.	NA	Photo <input type="checkbox"/>
B. The container is vented directly through a closed-vent system to a control device, or the container is vented inside an enclosure which is exhausted through a closed-vent system to a control device.	NA	665.1087(5)(a) Photo <input type="checkbox"/>
C. If the container is vented inside an enclosure, the enclosure is operated according to the criteria for permanent total enclosures found in Method 204 in appendix M of 40 CFR part 51.	NA	665.1087(5)(b)1 Photo <input type="checkbox"/>
D. Records for the most recent set of calculations and measurements verifying the enclosure meets the criteria for a permanent total enclosure in Method 204 in appendix M of 40 CFR part 51 are maintained at the facility.	NA	665.1090(4)(a) Photo <input type="checkbox"/>
E. Level 3 controls are used when wastes are transferred in or out of the container that minimize exposure to the atmosphere (e.g., submerged-fill pipe, vapor-recovery system, etc.) to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices.	NA	665.1087(5)(f) Photo <input type="checkbox"/>

### Section 18: Financial Responsibility

A. The facility maintains the following proof mechanism for closure: 1. Closure trust fund 2. Surety bond 3. Letter of credit 4. Insurance 5. Net worth test 6. Deposit with the department 7. Escrow account 8. Multiple financial mechanisms	Y	664.0143 Photo <input type="checkbox"/>
B. The facility complies with EITHER of the following: 1. The amount of the proof mechanism being maintained is adequate to cover the most recent closure cost estimate. 2. The facility is taking steps to increase the financial assurance to cover the closure costs within 60 days of a cost increase.	Y	664.0143 Photo <input type="checkbox"/>
C. The facility has the following type of liability coverage for sudden accidental occurrences: 1. Insurance 2. Financial test 3. Guarantee 4. Letter of credit 5. Surety bond 6. Trust fund 7. Multiple financial mechanisms	Y	664.0147(1) Photo <input type="checkbox"/>
D. Indicate the date of the most recent financial review done by the Department.		<input type="text"/> Photo <input type="checkbox"/>
E. The Department found that the financial responsibility for closure and liability coverage was adequate during the most recent financial review.		<input type="text"/> Photo <input type="checkbox"/>

Not Determined  
at this inspection

### Section 19: License Requirements

A. Facility is in compliance with the conditions of their license.	N	670.032 Photo <input type="checkbox"/>
B. Facility has not exceeded capacity limits for storage or treatment units.	Y	670.032 Photo <input type="checkbox"/>





Revision: 03/19/2012  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION

### Section 19: License Requirements

C. Facility notified the Department or requested a modification to their license, as required, for any changes at the facility.

Y

670.042

Photo ☐

### Section 20: Waste Minimization

A. Facility has a program to reduce the volume and toxicity of hazardous waste generated to the greatest economical degree possible.

Y

664.0073(2)(i)

Photo ☐

B. A waste minimization certification is signed at least annually and is maintained in the facility's operating record.

Y

664.0073(2)(i)

Photo ☐

C. Facility includes waste minimization information in its annual report.

Y

664.0075

Photo ☐

### Section 21: Used Oil

A. Used oil is managed on-site. If NO, go to Section 22

Y

Photo ☐

B. Used oil containing  $\geq 1,000$  ppm halogens is managed as listed hazardous waste or the rebuttable presumption requirements have been met.

NA

679.10(2)(a)2

Photo ☐

C. Used oil containers and tanks are in good condition and not leaking.

Y

679.22(2)

Photo ☐

D. Used oil containers and tanks are marked "used oil".

Y

679.22(3)(a)

Photo ☐

E. Transporter has an EPA ID number, except when generator self-transport or has a tolling agreement.

Y

679.24

Photo ☐

F. Used automotive oil filters and oil absorbent material are not land filled, except if less than 1 gallon absorbent results from a non-routine spill.

NA

Photo ☐

G. If used oil is burned in an on-site used oil-fired space heater, all of the following are met:  
1. Only used oil from the generator or household do-it-yourselfers is burned.  
2. The heater is designed with a maximum capacity of 0.5 million BTU per hour or less.  
3. The combustion gases are vented to the ambient air.

NA

679.23

Photo ☐

H. If used oil is accepted from others or sent off-site to be burned in a space heater, the used oil meets fuel specifications and the marketer requirements in NR 679 subch. H are met.

NA

679.11

Photo ☐

### Section 22: Facility Status Evaluation

A. Describe any other activities the facility is conducting.

Photo ☐





Revision: 09/28/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - TANK SYSTEM

This Inspection Form Supplement, used in conjunction with the TREATMENT AND STORAGE FACILITY INSPECTION REPORT, is for the inspection of facilities that are accumulating hazardous waste in licensed tank(s) at the facility.

### Section 1: Assessment of an Existing Tank System's Integrity

A. If the tank was installed before March 1, 1991 and does not meet the secondary containment requirements in Section 3, there is a written assessment, certified by a PE, on file at the facility that determines the tank system is adequately designed and has sufficient structural strength and compatibility with the wastes to be stored or treated so that it will not collapse, rupture or fail.

Date of the assessment: \_\_\_\_\_

If the tank was installed after March 1, 1991, go to Section 2.

NA

664.0191(1)

Photo ☐

*Meets Secondary Containment*

B. The written assessment considers ALL of the following:

1. Design standards for construction of the tank and ancillary equipment.
2. Hazardous characteristics for the wastes handled.
3. Corrosion protection measures.
4. The age of the tank system, either documented or estimated.  
Results of a leak test, internal inspection or other tank integrity examination.

NA

664.0191(2)

Photo ☐

### Section 2: Design and Installation of a New Tank System

A. If the tank was installed after March 1, 1991, written statements regarding the certification of the design of the tank and the supervision of its installation are kept at the facility. If the tank was installed before March 1, 1991, go to Section 3.

Y

664.0192(7)

Photo ☐

B. Ancillary equipment is supported and protected against physical damage and excessive stress due to settlement, vibration, expansion or contraction.

Y

664.0192(5)

Photo ☐

C. Corrosion protection is provided to ensure the integrity of the tank system.

NA

664.0192(6)

Photo ☐

D. Underground components are completely backfilled with noncorrosive, porous and homogenous material that is compacted so the tank and piping are fully and uniformly supported.

NA

664.0192(3)

Photo ☐

### Section 3: Containment & Detection of Releases

A. The tank system meets BOTH of the following (NR 664.0190(1)). If YES, go to Section 4.

1. Located inside a building with an impermeable floor.
2. Stores or treats hazardous waste that does not contain free liquids.

No

Photo ☐

B. The secondary containment system meets ALL of the following:

1. Constructed of or lined with materials that are compatible with the wastes placed in the tank.
2. Has sufficient strength and thickness to prevent failure due to pressure gradients, physical contact with the waste, climatic conditions and stresses of daily operation.
3. Placed on a foundation or base that provides support to the secondary containment system and is capable of preventing failure due to settlement, compression or uplift.
4. Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills or precipitation.

Y

664.0193(3)

Photo ☐

*As far as I could ascertain.*

C. The leak detection system is designed and operated to detect EITHER of the following:

1. The failure of either the primary or secondary containment structure.
2. The presence of a release within 24 hours or the earliest practicable time if a release cannot be detected within 24 hours.

Y

664.0193(3)

Photo ☐

D. Spilled waste and accumulated precipitation are removed from the secondary containment system within 24 hours or in a timely manner if removal within 24 hours cannot be accomplished.

Y

664.0193(3)(d)

Photo ☐





Revision: 09/28/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - TANK SYSTEM

### Section 3: Containment & Detection of Releases

E. External liner system meets ALL of the following: 1. Designed or operated to contain 100% of the capacity of the largest tank. 2. Designed or operated to prevent run-on or infiltration of precipitation unless the collection system has capacity to contain precipitation from a 25 year, 24 hour storm. 3. Free of cracks and gaps. 4. Designed and installed to surround the tank completely and cover all surrounding earth likely to come in contact with the waste.	Y	664.0193(5)(a) Photo <input type="checkbox"/>
F. Vault system meets ALL of the following: 1. Designed or operated to contain 100% of the capacity of the largest tank. 2. Designed or operated to prevent run-on or infiltration of precipitation unless the collection system has capacity to contain precipitation from a 25 year, 24 hour storm. 3. Constructed with chemical resistant water stops in place at all joints. 4. Provided with an impermeable interior coating or lining that is compatible with the stored waste and will prevent migration of waste into the concrete. 5. Provided with a means to protect against the formation of and ignition of vapors within the vault if ignitable or reactive waste is stored or treated. 6. Provided with an exterior moisture barrier or otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.	N/A	664.0193(5)(b) Photo <input type="checkbox"/>
G. Double-walled tank meets ALL of the following: 1. Designed as an integral structure so that the outer shell contains any release from the inner tank. 2. If constructed of metal, protected from corrosion of the primary tank interior and of the external surface of the outer shell. 3. Provided with a built-in continuous leak detection system capable of detecting a release within 24 hours or at the earliest practicable time.	N/A	664.0193(5)(c) Photo <input type="checkbox"/>
H. The Department approved an equivalent type of secondary containment device if the device is not an external liner, vault system or double-walled tank.	N/A	664.0193(4)(d) Photo <input type="checkbox"/>
I. All ancillary equipment has secondary containment (trench, jacketing, double walled piping) except for the following when they are visually inspected for leaks on a daily basis: 1. Aboveground piping, excluding flanges, joints, valves and other connections. 2. Welded flanges, welded joints and welded connections. 3. Sealless or magnetic coupling pumps and sealless valves. 4. Pressurized aboveground piping systems with automatic shut-off devices (excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices).		664.0193(6) Photo <input type="checkbox"/>
J. If the tank system does not meet the above secondary containment system requirements, the owner or operator has complied with the following: 1. For non-enterable underground tanks, conduct a leak test at least annually. 2. For other than non-enterable underground tanks, conduct a leak test OR have a PE develop a schedule and procedure for assessing the overall condition of the tank system at a frequency to be determined by the operating conditions of the tank system. 3. For ancillary equipment, conduct a leak test or other integrity assessment at least annually. 4. The results of the assessments are maintained in the facility file.	N/A	664.0193(9) Photo <input type="checkbox"/>

### Section 4: General Operating Requirements

A. Hazardous waste or treatment reagents that are placed into the tank system will not cause the tank, ancillary equipment or containment system to rupture, leak, corrode, or otherwise fail.	N/A	664.0194(1) Photo <input type="checkbox"/>
--	-----	---

ONE SPILL - OVERFILL ALARM IGNORED.





Revision: 09/28/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - TANK SYSTEM

### Section 4: General Operating Requirements

B. The following controls and practices are used to prevent spills and overflows from the tank or containment system:

1. Spill prevention controls (check valves or dry disconnect couplings).
2. Overfill prevention controls (level sensing devices, high level alarms, automatic feed cutoff or bypass to a standby tank).
3. Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind actions or precipitation.

Y

664.0194(2)

Photo ☐

C. The facility clearly marks each tank, or records in the operating record, ALL of the following information:

1. A description of the tank contents.
2. The quantity of each hazardous waste received.
3. The date each period of accumulation begins. (Track by tank incoming → consumed dates. Pump out records)

Y

668.50(1)(b)2

Photo ☐

D. Hazardous waste is stored in tanks for less than one year.

Y

668.50(2)

Photo ☐

E. If waste is stored in tanks for more than one year, the facility can prove that storage was necessary to facilitate proper recovery, treatment or disposal.

N/A

668.50(3)

Photo ☐

### Section 5: Inspections

A. Overfill control equipment (waste-feed cutoff systems, bypass systems and drainage systems) is inspected according to their facility's inspection schedule.

Y

664.0195(1)

Photo ☐

B. ALL of the following are inspected at least once each operating day:

1. Aboveground portions of the tank system to detect corrosion or releases of waste.
2. Data gathered from monitoring and leak detection equipment (pressure or temperature gauges, monitoring wells) to ensure that the tank system is operated according to its design.
3. The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs of hazardous waste releases (wet spots, dead vegetation).

Y

664.0195(2)

Photo ☐

C. Cathodic protection systems are inspected according to BOTH of the following:

1. The proper operation of the cathodic protection system is confirmed within 6 months of the initial installation and annually thereafter.
2. All sources of impressed current are inspected and/or tested at least every other month.

N/A

664.0195(3)

Photo ☐

D. The inspection results are documented in the operating record.

Y

664.0195(4)

Photo ☐

### Section 6: Response to Leak and Spills

A. There has been a spill or leak from the tank system or containment system. If NO, go to Section 7.

Y

Photo ☐

B. The tank system or secondary containment system was removed from service immediately.

Y

664.0196

Photo ☐

C. The flow of hazardous waste into the tank system or secondary containment system was stopped immediately and the system was inspected to determine the cause of the release.

Y

664.0196(1)

Photo ☐



Revision: 09/28/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - TANK SYSTEM

### Section 6: Response to Leak and Spills

D. If the release was from the tank system, the owner or operator performed BOTH of the following: 1. Removed as much waste as necessary to prevent further releases. 2. Allowed inspection and repair of the tank system within 24 hours after detection or at the earliest practicable time.	Y	664.0196(2)(a) Photo <input type="checkbox"/>
E. If material was released to a secondary containment system, all released material was removed within 24 hours or in a timely manner to prevent harm to human health and the environment.	Y	664.0196(2)(b) Photo <input type="checkbox"/>
F. The owner or operator did ALL of the following: 1. Conduct a visual inspection of the release. 2. Prevent further migration of the spill to soils or surface water. 3. Remove and properly dispose of any visible soil or surface water contamination.	Y	664.0196(3) Photo <input type="checkbox"/>
G. The release was reported to the Department within 24 hours of its detection, except when less than one pound was released and the material was contained and cleaned up immediately.	Y	664.0196(4) Photo <input type="checkbox"/>
H. Written report was submitted to the Department within 30 days of detecting the release.	Y	664.0196(4)(c) Photo <input type="checkbox"/>
I. The following actions were taken: 1. If the integrity of the tank system was not damaged, the system was returned to service after cleanup and repairs. 2. If the leak was from the tank system into secondary containment, the system was repaired before the tank was returned to service. 3. If the leak was from a component that did not have secondary containment, either secondary containment was provided or repairs were made if the component can be visually inspected.	Y	664.0196(5) Photo <input type="checkbox"/>
J. If major repairs were made to the tank system, a PE certification was obtained and submitted to the Department within 7 days of returning the tank system to use.	NA	664.0196(6) Photo <input type="checkbox"/>

### Section 7: Special Requirements for Ignitable, Reactive or Incompatible Wastes

A. Ignitable, reactive or incompatible waste is stored or treated in tanks. If NO, go to Section 8.	Y	 Photo <input type="checkbox"/>
B. The waste is treated or mixed before or immediately after placed in a tank system so that ALL of the following apply: 1. Extreme heat, pressure, fire, explosions or reactions are not produced. 2. Uncontrolled toxic or flammable fumes or gases are not produced. 3. The structural integrity of the tank system is not damaged. 4. Other means are taken so human health or the environment is not threatened. 5. The waste no longer meets the definition of ignitable or reactive waste.		664.0198(1)(a) Photo <input type="checkbox"/>
C. Ignitable or reactive waste is stored or treated in a way to protect it from any material or conditions that may cause the waste to ignite or react.	Y	664.0198(1)(b) Photo <input type="checkbox"/>
D. The tank system is only used to treat or store ignitable or reactive waste during an emergency.	No	664.0198(1)(c) Photo <input type="checkbox"/>
E. Buffer zone requirements between the tanks and any public ways or adjoining property lines are in compliance with the NFPA standards in the Flammable and Combustible Liquids Code.	Y	664.0198(2) Photo <input type="checkbox"/>





Revision: 09/28/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - TANK SYSTEM

### Section 7: Special Requirements for Ignitable, Reactive or Incompatible Wastes

F. The tank system is decontaminated before adding an incompatible waste.

Y

664.0199(2)

Photo ☐

### Section 8: Subchapter CC Level 1 Standards - Fixed Roof Tanks

A. Hazardous waste tanks are excluded from subch. CC requirements because of BOTH of the following (NR 664.1082(3)(a)):

NO

Photo ☐

1. The average VO concentration at the point of origination is <500 ppmw for all hazardous waste entering the tank.
2. The initial determination of the average VO concentration is reviewed and updated at least once every 12 months.

B. Waste determinations for excluded tanks are made according to ALL of the following:

Y

664.1083(1)

Photo ☐

1. The initial determination of the average VO concentration for the waste stream was made before the material was placed in the tank.
2. A new waste determination is performed whenever changes to the source generating the waste stream likely causes the average VO concentration to increase to  $\geq 500$  ppmw.
3. The average VO concentration is determined by direct measurement or by knowledge.

> Assume  
500 ppmw

Note: See NR 665.1084(1)(c) for direct measurement procedures and NR 665.1084(1)(d) for using knowledge.

C. For each waste determination, the date, time and location of each waste sample collected are maintained in the facility records.

664.1089(6)(a)

Photo ☐

D. Tanks are excluded from CC requirements because they are used to store or treat hazardous waste from organic peroxide manufacturing processes (NR 664.1080(4)).

NO

Photo ☐

Note: Certain records are to be maintained. Refer to NR 664.1089(9) for more information.

E. Hazardous waste tanks are excluded from CC requirements because of the following (NR 664.1080(2)):

Y

Photo ☐

1. Waste is no longer added to the tank and closure has been implemented or completed.
2. The tank is used solely to store or treat on-site remediation wastes generated through NR 700 or RCRA corrective action activities OR radioactive mixed wastes in accordance with NRC requirements.
3. The tank is equipped with air emission controls operating in accordance with the Clean Air Act requirements AND the facility records include a certification signed by the owner or operator and the specific air program compliance requirements for the unit.
4. If an enclosure is used as the air emission control, the enclosure is in compliance with the enclosure and control device requirements unless the tank bulk feeds to an incinerator.
5. The tank has a process vent subject to Subch. AA requirements.

F. Hazardous waste tanks are excluded from CC regulation because of any of the following (NR 664.1082(3)):

NA

Photo ☐

1. The organic content of all waste entering the tank has been reduced by an organic destruction or removal process described in NR 664.1082(3).
2. The hazardous organic constituents placed in the tank are treated to meet LDR standards.
3. The tank is in an enclosure that vents to a control device and bulk feeds to an incinerator.

G. All tanks are excluded from subch. CC requirements. If YES, go to Section 9.

Y

Photo ☐



Revision: 09/28/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - TANK SYSTEM

### Section 8: Subchapter CC Level 1 Standards - Fixed Roof Tanks

H. The maximum organic vapor pressure of the hazardous waste managed in a fixed roof tank is less than the maximum organic vapor pressure limit for the tank's design capacity category as follows (NR 664.1084(2)(a)). If NO, go to Question ZA. 1. Tank design capacity is $\geq$ 40,000 gallons and the maximum organic vapor pressure limit for the tank is 0.75 psi (5.2 kPa). 2. Tank design capacity is between 20,000 to 40,000 gallons and the maximum organic vapor pressure limit for the tank is 4.0 psi (27.6 kPa). 3. Tank design capacity is $<$ 20,000 gallons and the maximum organic vapor pressure limit for the tank is 11.1 psi (76.6 kPa).	NA	664.1084(2)(a) Photo <input type="checkbox"/>
I. The maximum organic vapor pressure of the hazardous waste managed in the tank is determined according to ALL of the following: 1. The maximum organic vapor pressure is determined before the waste is first placed in the tank. 2. A new determination is performed when changes to the hazardous waste could cause the maximum organic vapor pressure to increase to or exceed the maximum vapor pressure for the tank design capacity. 3. The maximum organic vapor pressure was determined by either direct measurement or knowledge.  Note: See NR 665.1084(1)(c) for direct measurement procedures and NR 665.1084(1)(d) for using knowledge.	NA	664.1084(3)(a) Photo <input type="checkbox"/>
J. If the maximum organic vapor pressure was determined by direct measurement, ALL of the following information is maintained in the facility records: 1. The date and time of sample collection. 2. The analytical method and results.	NA	664.1089(2)(b) Photo <input type="checkbox"/>
K. If the maximum organic vapor pressure was determined by direct measurement, a copy of the written sampling plan is on file.	NA	664.1083(3)(c) Photo <input type="checkbox"/>
L. If the maximum organic vapor pressure was determined by knowledge, the facility records include the information used as the basis for knowing that the maximum organic vapor pressure limit of the hazardous waste is less than the maximum vapor pressure limit listed for the applicable tank design capacity category.	NA	664.1083(3)(d) Photo <input type="checkbox"/>
M. The tank is equipped with a fixed roof and closure devices to form a continuous barrier over the entire surface area of the hazardous waste in the tank.	NA	664.1084(3)(b) Photo <input type="checkbox"/>
N. The fixed roof is EITHER of the following: 1. A separate cover installed on the tank (a removable cover mounted on an open-top tank). 2. An integral part of the tank structural design (horizontal cylindrical tank equipped with a hatch).	NA	664.1084(3)(b)1 Photo <input type="checkbox"/>
O. The fixed roof is installed in a manner so there are no cracks, holes, gaps or other open spaces visible between the roof section joints or between the interface of the roof edge and tank wall.	NA	664.1084(3)(b)2 Photo <input type="checkbox"/>
P. Each opening in the fixed roof and any manifold system for the fixed roof is EITHER of the following: 1. Equipped with a closure device that, when closed, has no visible cracks, holes, gaps or other open spaces. 2. Connected by a closed-vent system to a control device that is operating whenever hazardous waste is managed in the tank, except during routine inspections and maintenance.	NA	664.1084(3)(b)3 Photo <input type="checkbox"/>
Q. The closure devices and fixed roof are made of materials that minimize the release of hazardous waste to the atmosphere and maintain the integrity of the roof and closure devices.	NA	664.1084(3)(b)4 Photo <input type="checkbox"/>

220



Revision: 09/28/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - TANK SYSTEM

### Section 8: Subchapter CC Level 1 Standards - Fixed Roof Tanks

R. Each closure device is secured in the closed position and the fixed roof installed except when inspections and maintenance are performed or tank sludge is removed.	NA	664.1084(3)(c)1 Photo <input type="checkbox"/>
S. If the tank is equipped with a pressure relief device which vents to the atmosphere, the pressure relief device is operated according to BOTH of the following: 1. There are no detectable organic emissions (<500 ppmv) when the pressure relief device is closed. 2. The pressure relief device is only opened during normal operations to maintain the tank internal pressure according to tank design specifications.	NA	664.1084(3)(c)2 Photo <input type="checkbox"/>
T. Safety devices are only opened when necessary to avoid unsafe conditions.	NA	664.1084(3)(c)3 Photo <input type="checkbox"/>
U. The fixed roof and closure devices are visually inspected at least once every year for the following defects, at a minimum, that could result in air pollutant emissions: 1. Visible cracks, holes or gaps in the roof sections or between the roof and tank wall. 2. Damaged seals or gaskets on closure devices. 3. Broken or missing hatches, access covers, caps or other closure devices.	NA	664.1084(3)(d) Photo <input type="checkbox"/>
V. If inspections are conducted at intervals longer than one year, the fixed roof or closure device has been designated as "unsafe to inspect and monitor".	NA	664.1084(12) Photo <input type="checkbox"/>
W. If the fixed roof or closure device has been designated as "unsafe to inspect and monitor", ALL of the following information is recorded in a log: 1. The identification numbers for the roof or closure device with covers that are designated as "unsafe to inspect and monitor". 2. A written explanation stating the reasons why the roof or closure device is unsafe to visually inspect or monitored. 3. A written plan and schedule for inspecting and monitoring the roof or closure device as frequently as practical when a worker can gain safe access.	NA	664.1089(7) Photo <input type="checkbox"/>
X. First efforts of repair are made within 5 calendar days of detection and completed no later than 45 calendar days of detection unless repair is delayed.	NR	664.1084(11) Photo <input type="checkbox"/>
Y. Repair is delayed until the next time the process or unit generating the waste stops operation because the tank must be emptied for repair and there is no alternate tank capacity.	NA	664.1084(1) Photo <input type="checkbox"/>
Z. Inspection records are maintained for at least 3 years and include ALL of the following: 1. Tank ID#. 2. Date of inspection. 3. Location and description of the defect. 4. Date the problem was detected and the corrective action taken. 5. The reason repair was delayed and the date of completion, if applicable.	NA	664.1084(3)(d)4 Photo <input type="checkbox"/>
ZA. The facility manages hazardous waste in any of the following tanks (NR 664.1084(2)(b)). If YES, complete the Subch. CC Level 2 and 3 Standards for Containers and Tanks inspection form. 1. Hazardous waste in the tank has a maximum organic vapor pressure greater or equal to the maximum limit for the tank's design capacity category as stated in Question H. 2. Tank is used for a waste stabilization process. 3. Hazardous waste in the tank is heated to a temperature greater than the temperature at which the vapor pressure was determined. 4. Tank has a fixed roof with an internal floating roof. 5. Tank has an external floating roof. 6. Tank is subject to subch. CC and vented to a control device. 7. Tank is a pressure tank. 8. Tank is located inside an enclosure.	NA	664.1090(2) Photo <input type="checkbox"/>





Revision: 09/28/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - TANK SYSTEM

### Section 8: Subchapter CC Level 1 Standards - Fixed Roof Tanks

ZB. If the facility managed hazardous waste with an average VO concentration >500 ppmw or without adequate reduction of the organic content by an organic destruction or removal process in a tank exempt from subch. CC level 1 standards, a written report was submitted to the department within 15 calendar days of the time the owner or operator becomes aware of the occurrence which includes ALL of the following information:

1. The facility name, address and EPA identification number.
2. A description of the noncompliance event.
3. The cause and dates of the noncompliance.
4. The actions taken to correct the noncompliance.
5. The actions taken to prevent the reoccurrence of the noncompliance.

NA

664.1090(1)

Photo ☐

ZC. If hazardous waste with an organic vapor pressure exceeding the maximum organic vapor pressure limit for the tank design capacity has been placed in a tank with level 1 standards, a written notification was submitted to the department within 15 calendar days of the time the owner or operator becomes aware of the occurrence that contains, at a minimum, the following information:

1. The facility name, address and EPA identification number.
2. A description of the noncompliance event.
3. The cause and dates of the noncompliance.
4. The actions taken to correct the noncompliance.
5. The actions taken to prevent the reoccurrence of the noncompliance.

NA

664.1090(2)

Photo ☐

ZD. If hazardous waste is transferred from one tank to another tank subject to level 1 or level 2 standards, continuous hard-piping or another closed system that does not allow exposure of hazardous waste to the atmosphere is used, except under any of the following conditions:

1. The average VO concentration at the point of waste origination is <500 ppmw and is determined at least once every 12 months.
2. Hazardous waste has been treated to a specified concentration by an organic or biological destruction or removal process.
3. The organic constituents of the hazardous waste placed in the tank are treated to meet the LDR treatment standards.

NA

664.1084(10)

Photo ☐

### Section 9: Facility Status Evaluation

A. The facility conducts hazardous waste activities other than tank storage or treatment. If YES, complete the appropriate inspection forms (container storage, universal waste, used oil, etc.)

Y

Photo ☐





Revision: 10/31/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - SUBCH. BB REQUIREMENTS FOR EQUIPMENT LEAKS

This Inspection Form, used in conjunction with the TREATMENT AND STORAGE FACILITY INSPECTION REPORT, is for the inspection of facilities that are operating equipment that is not excluded from ch. NR 664 subch. BB requirements.

### Section 1: Standards for Pumps in Light Liquid Service

A. Pumps in light liquid service are used at the facility. If NO, go to Section 2.	Y		Photo <input type="checkbox"/>
B. The facility has marked each pump subject to subch. BB standards in a way that distinguishes it readily from other pieces of equipment.	N	664.1050(4)	Photo <input type="checkbox"/>
C. All pumps are equipped with a closed-vent system capable of capturing and transporting leakage from seals to a control device. If YES, go to Section 2 and complete the inspection form, "TSD Subch. AA & BB Standards for Closed Vent Systems and Control Devices".	N/A	664.1052(6)	Photo <input type="checkbox"/>
D. Each pump is equipped with a dual mechanical seal system and barrier fluid system that meets ANY of the following requirements: 1. The dual mechanical seal system operates with the barrier fluid at a pressure that is always greater than the pump stuffing box pressure. 2. The dual mechanical seal system is equipped with a barrier fluid degassing reservoir connected by a closed-vent system to a control device. 3. The dual mechanical seal system is equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to the atmosphere.	N/A	664.1052(4)	Photo <input type="checkbox"/>
E. Each pump is equipped with a dual mechanical seal system and barrier fluid system that meets ALL of the following requirements: If Questions 1.D. and 1.E. are YES, go to Section 2. 1. The barrier fluid system is not a hazardous waste with organic concentrations of $\geq 10\%$ by weight. 2. Each barrier fluid system is equipped with a sensor to detect failure of the seal system, the barrier fluid system or both. 3. Each pump is checked by visual inspection each calendar week for liquids dripping from the pump seal. 4. Each sensor for detecting failure is checked daily or equipped with an audible alarm that is checked monthly to ensure it is functioning properly. 5. A criterion to indicate failure of the seal system, the barrier fluid system, or both has been determined based on design considerations and operating experience. 6. When a leak is detected (liquid dripping from the pump seal or a sensor indicates failure of the seal system or barrier fluid system), the first attempt at repair is made within 5 days of it being detected. 7. The leak is repaired as soon as practicable, but no later than within 15 days of detecting the leak, except when the repair is technically infeasible without equipment shutdown.	N/A	664.1052(4)	Photo <input type="checkbox"/>
F. A pump designated in the operating log as operating with no detectable emissions (instrument reading $< 500$ ppm above background) meets ALL of the following: 1. The pump has no externally actuated shaft penetrating the pump housing. 2. The pump is tested initially upon designation and annually thereafter to assure it operates with no detectable emissions ( $< 500$ ppm above background).	N/A	664.1052(5)	Photo <input type="checkbox"/>
G. Equipment measuring nondetectable emissions meet ALL of the following: If Questions 1.F. and 1.G. are YES, go to Section 2. 1. Monitoring complies with Method 21 in appendix A, 40 CFR part 60. 2. The detection instrument meets the performance criteria of Method 21. 3. The detection instrument is calibrated before each day of use. 4. Calibration gases consist of zero air ( $< 10$ ppm hydrocarbon in air) and a mixture of $< 10,000$ ppm methane or n-hexane in air. 5. The background level is determined according to Method 21 in appendix A of 40 CFR part 60. 6. The instrument probe is traversed around all potential leak interfaces as closely as possible. 7. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm.	N/A	664.1052(5)	Photo <input type="checkbox"/>





Revision: 10/31/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - SUBCH. BB REQUIREMENTS FOR EQUIPMENT LEAKS

### Section 1: Standards for Pumps in Light Liquid Service

H. Each pump is monitored monthly according to ALL of the following: (NR 664.1063(2)) 1. Monitoring complies with Method 21 in appendix A of 40 CFR part 60. 2. The detection instrument meets the performance criteria of Method 21. 3. The detection instrument is calibrated before each day of use. 4. Calibration gases consist of zero air (<10 ppm hydrocarbon in air) and a mixture of <10,000 ppm methane or n-hexane in air. 5. The instrument probe is traversed around all potential leak interfaces as closely as possible.	Y	664.1052(1)(a) Photo <input type="checkbox"/>
I. Each pump is visually inspected every calendar week for liquids dripping from the pump seal. <i>Daily inspections</i>	Y	664.1052(1)(b) Photo <input type="checkbox"/>
J. When a leak is detected (an instrument reading of $\geq 10,000$ ppm or liquids dripping from the pump seal), a weatherproof and readily visible identification is attached to the leaking pump which indicates the equipment ID number, the date evidence of a potential leak was found, and the date the leak was detected.	Y	664.1064(3) Photo <input type="checkbox"/>
K. The identification is removed after the pump is repaired.	Y	664.1064(3) Photo <input type="checkbox"/>
L. If a leak is detected, the first attempt at repair (tightening the packing gland) is made within 5 calendar days of detecting the leak.	Y	664.1052(3) Photo <input type="checkbox"/>
M. Repair is completed as soon as practicable, but no later than 15 calendar days after detecting the leak, except when the repair is technically infeasible without equipment shutdown.	Y	664.1052(3) Photo <input type="checkbox"/>
N. If repair is technically infeasible without equipment shutdown, the pump is repaired before the end of the next hazardous waste management shutdown. <i>written into program</i>	Y/NA	664.1059(1) Photo <input type="checkbox"/>
O. While repair is delayed, the pump is isolated from the hazardous waste management unit and the pump does not contain or contact hazardous waste with organic concentrations $\geq 10\%$ by weight. <i>written in - never used</i>	Y/NA	664.1059(2) Photo <input type="checkbox"/>
P. If repair of the pump is delayed, the repair requires use of a dual mechanical seal system that includes a barrier fluid system or the repair is completed as soon as practicable, but within 6 months of detecting the leak.	N/A	664.1059(4) Photo <input type="checkbox"/>

### Section 2: Standards for Compressors

A. A compressor is used at the facility. If NO, go to Section 3.	No	Photo <input type="checkbox"/>
B. The facility has marked each compressor subject to subch. BB standards in a way that distinguishes it readily from other pieces of equipment.	NA	664.1050(4) Photo <input type="checkbox"/>
C. The compressor operates with an instrument reading <500 ppm above background and is designated in the operating log for no detectable emissions.	NA	664.1053(9) Photo <input type="checkbox"/>





Revision: 10/31/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - SUBCH. BB REQUIREMENTS FOR EQUIPMENT LEAKS

### Section 2: Standards for Compressors

D. The equipment measuring nondetectable emissions meets ALL of the following: 1. Monitoring complies with Method 21 in appendix A, 40 CFR part 60. 2. The detection instrument meets the performance criteria of Method 21. 3. The detection instrument is calibrated before each day of use. 4. Calibration gases consist of zero air (<10 ppm hydrocarbon in air) and a mixture of <10,000 ppm methane or n-hexane in air. 5. The background level is determined according to Method 21 in appendix A of 40 CFR part 60. 6. The instrument probe is traversed around all potential leak interfaces as closely as possible. 7. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm.	NA	664.1053(9) Photo <input type="checkbox"/>
E. Testing of emissions is done initially upon designation, annually thereafter and at other times specified by the department. If Questions 2. C, 2. D and 2. E. are YES, go to Section 3.	NA	664.1053(9) Photo <input type="checkbox"/>
F. All compressors are equipped with a closed-vent system that captures and transports leakage from the compressor seal to a control device. If YES, go to Question 2. L. and complete the inspection form, "TSD Subch. AA & BB Standards for Closed Vent Systems and Control Devices".	NA	664.1053(8) Photo <input type="checkbox"/>
G. The compressor is equipped with a seal system, including a barrier fluid system, which prevents leakage of total organic emissions to the atmosphere.	NA	664.1053(1) Photo <input type="checkbox"/>
H. The compressor seal system is ANY of the following: 1. Operated with the barrier fluid at a pressure that is always greater than the compressor stuffing box pressure. 2. Equipped with a barrier fluid system that is connected by a closed vent system to a control device. Note: Complete the inspection form, "Standards for Closed Vent Systems and Control Devices for subch. AA and BB". 3. Equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to the atmosphere.	NA	664.1053(2) Photo <input type="checkbox"/>
I. If the barrier fluid is a hazardous waste, organic concentrations are <10%.	NA	664.1053(3) Photo <input type="checkbox"/>
J. Each barrier fluid system is equipped with a sensor that detects failure of the seal system, barrier fluid system or both.	NA	664.1053(4) Photo <input type="checkbox"/>
K. Each sensor for the barrier fluid system is checked daily and is equipped with an audible alarm that is checked monthly, unless the compressor is located within the boundary of an unmanned plant site.	NA	664.1053(5)(a) Photo <input type="checkbox"/>
L. When a leak is detected in a compressor, a weatherproof and readily visible identification is attached to the leaking compressor which contains the equipment ID number, the date evidence of a potential leak was found, and the date the leak was detected.	NA	664.1064(3) Photo <input type="checkbox"/>
M. The identification on the compressor is removed after repair.	NA	664.1064(3) Photo <input type="checkbox"/>
N. When a leak is detected, first attempt at repair (e.g., tightening the packing gland) is made within 5 calendar days of detecting the leak.	NA	664.1053(7) Photo <input type="checkbox"/>
O. Repair is completed as soon as practicable, but no later than 15 calendar days after detecting the leak, except when the repair is technically infeasible without equipment shutdown.	NA	664.1053(7) Photo <input type="checkbox"/>



Revision: 10/31/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - SUBCH. BB REQUIRMENTS FOR EQUIPMENT LEAKS

### Section 2: Standards for Compressors

P. If the repair is technically infeasible without equipment shutdown, the equipment is repaired before the end of the next hazardous waste management unit shutdown.	NA	664.1059(1)
		Photo <input type="checkbox"/>
Q. While repair is delayed, the compressor is isolated from the hazardous waste management unit and the compressor does not contain or contact hazardous waste with organic concentrations of $\geq 10\%$ by weight.	NA	664.1059(2)
		Photo <input type="checkbox"/>

### Section 3: Standards for Pressure Relief Devices in Gas or Vapor Service

*PV/RV Pressure and Vacuum*

A. Pressure relief devices are used at the facility. If NO, go to Section 4.	Y	
		Photo <input type="checkbox"/>
B. The facility has marked each pressure relief device subject to subch. BB standards in a way that distinguishes it readily from other pieces of equipment.	Y	664.1050(4)
<i>ON TANKS.</i>		Photo <input type="checkbox"/>
C. All pressure relief devices are equipped with a closed-vent system capable of capturing and transporting leakage to a control device. If YES, go to Section 4 and complete the inspection form, "TSD Subch. AA & BB Standards for Closed Vent Systems and Control Devices".	N/A	664.1054(3)
		Photo <input type="checkbox"/>
D. Each pressure relief device is operated with no detectable emissions (instrument readings $< 500$ ppm above background) except during pressure releases.	Y	664.1054(1)
		Photo <input type="checkbox"/>
E. The equipment measuring nondetectable emissions meets ALL of the following: (NR 664.1063(3))	Y	664.1054(1)
1. Monitoring complies with Method 21 in appendix A of 40 CFR part 60.		Photo <input type="checkbox"/>
2. The detection instrument meets the performance criteria of Method 21.		
3. The detection instrument is calibrated before each day of use.		
4. Calibration gases consist of zero air ( $< 10$ ppm hydrocarbon in air) and a mixture of $< 10,000$ ppm methane or n-hexane in air.		
5. The background level is determined according to Method 21 in appendix A of 40 CFR part 60.		
6. The instrument probe is traversed around all potential leak interfaces as closely as possible.		
7. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm.		
F. After each pressure release, the pressure relief device is returned to a condition of no detectable emissions (instrument reading $< 500$ ppm above background) as soon as practicable, but no later than 5 calendar days after each pressure release, except when the repair is technically infeasible without equipment shutdown.	Y	664.1054(2)(a)
		Photo <input type="checkbox"/>
G. If the repair is technically infeasible without equipment shutdown, the pressure release device is repaired before the end of the next hazardous waste management unit shutdown.	N/A	664.1059(1)
		Photo <input type="checkbox"/>
H. If repair has been delayed, the pressure relief device is isolated from the hazardous waste management unit and does not continue to contain or contact hazardous waste with organic concentrations of $\geq 10\%$ by weight.	N/A	664.1059(2)
		Photo <input type="checkbox"/>
I. Within 5 calendar days of each pressure release, the pressure relief device is monitored using Method 21 in appendix A of 40 CFR part 60 to confirm the device has been returned to a condition of no detectable emissions (instrument readings $< 500$ ppm above background).	Y	664.1054(2)(b)
		Photo <input type="checkbox"/>





Revision: 10/31/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - SUBCH. BB REQUIREMENTS FOR EQUIPMENT LEAKS

### Section 4: Standards for Sampling Connection Systems

A. The facility uses a sampling connection system. If NO, go to Section 5.	NO		Photo <input type="checkbox"/>
B. The facility has marked each sampling connection system subject to subch. BB standards in a way that distinguishes it readily from other pieces of equipment.	NA	664.1050(4)	Photo <input type="checkbox"/>
C. An in-situ sampling system or sampling system without purging is used. If YES, go to Section 5.	NA	664.1054(2)(b)	Photo <input type="checkbox"/>
D. Each sampling connection system is equipped with a closed-purge, closed-loop, or closed-vent system that collects the sample purge and returns it to the process or routes it to a treatment system.	NA	664.1055(1)	Photo <input type="checkbox"/>
E. Purged process fluid is managed according to ANY of the following: 1. Returned directly to the process line. 2. Collected and recycled. 3. Captured and transported to a control device or a waste management unit in compliance with subch. CC requirements.	NA	664.1055(2)	Photo <input type="checkbox"/>
Note: If transported to a control device, complete the inspection form, "TSD Subch. AA & BB Standards for Closed Vent Systems and Control Devices".			

### Section 5: Standards for Open-Ended Valves or Lines

A. Open-ended valves or lines are in service at the facility. If NO, go to Section 6.	Y		Photo <input type="checkbox"/>
B. The facility has marked each open-ended valve or line subject to subch. BB standards in a way that distinguishes it readily from other pieces of equipment.	N	664.1050(4)	Photo <input type="checkbox"/>
C. Each open-ended valve or line is equipped with a cap, blind flange, plug or second valve.	one in sack-out dock Y	664.1056(1)(a)	Photo <input type="checkbox"/>
D. The cap, blind flange, plug or second valve seal the open-end at all times, except when operations require hazardous waste to flow through the open-ended valve or line.	N	664.1056(1)(b)	Photo <input type="checkbox"/>
E. If the open-ended valve or line is equipped with a second valve, the valve on the hazardous waste stream end is closed before the second valve is closed.	NA	664.1056(2)	Photo <input type="checkbox"/>
F. If a double block and bleed system is used, the bleed valve or line only remains open when the line between the block valves is vented.	N/A	664.1056(3)	Photo <input type="checkbox"/>

### Section 6: Standards for Valves in Gas or Vapor Service or in Light Liquid Service

A. Valves in gas or vapor service or in light liquid service are used. If NO, go to Section 7.	Y		Photo <input type="checkbox"/>
B. The facility has marked each valve subject to subch. BB standards in a way that distinguishes it readily from other pieces of equipment.	N	664.1050(4)	Photo <input type="checkbox"/>

Covered by Isometha drawings BW

Code/Stat ? : C: Compliance CA: Compliance with Concern R: Returned to Compliance X: Non-Compliance NA: Inspected, Not Applicable ND: Inspected, Not Determined NI: Not Inspected  
Noncode ? : Y: Yes N: No UN: Unknown

Notes : \*: Dept. approved alternate may apply No 'box' is an open ended question





Revision: 10/31/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - SUBCH. BB REQUIREMENTS FOR EQUIPMENT LEAKS

### Section 6: Standards for Valves in Gas or Vapor Service or in Light Liquid Service

C. Valves with no detectable emissions (instrument reading <500 ppm above background) comply with ALL of the following:

1. The valves have no external actuating mechanism in contact with the hazardous waste stream.
2. Testing of emissions is done initially upon designation, annually thereafter and at other times specified by the department.
3. The valves are designated in the operating log for no detectable emissions.

N/A

664.1057(6)

Photo ☐

D. The equipment measuring nondetectable emissions meets ALL of the following: If Questions 6. C. and 6.D. are YES for all valves subject to subch. BB, go to Question 6. P.

1. Monitoring complies with Method 21 in appendix A, 40 CFR part 60.
2. The detection instrument meets performance criteria of Method 21.
3. The detection instrument is calibrated before each day of use.
4. Calibration gases consist of zero air (<10 ppm hydrocarbon in air) and a mixture of <10,000 ppm methane or n-hexane in air.
5. The background level is determined according to Method 21 in appendix A of 40 CFR part 60.
6. An instrument probe is traversed around all potential leak interfaces as closely as possible.
7. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm.

N/A

664.1057(6)

Photo ☐

E. For each valve designated as unsafe-to-monitor, a determination was made that monitoring personnel would be exposed to an immediate danger as a consequence of monitoring by Method 21.

N/A

664.1057(7)

Photo ☐

F. The facility follows a written plan that requires monitoring of each unsafe valve as frequently as practicable during safe-to-monitor times. If Questions 6. E. and 6.F. are YES for all other valves subject to subch. BB, go to Question 6. P.

N/A

664.1057(7)

Photo ☐

G. Each valve designated as difficult-to-monitor meets ANY of the following: If YES, go to Question 6. P.

1. The valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.
2. The valve is part of a hazardous waste management unit in operation before June 1, 1995.
3. A written plan is followed that requires monitoring of the valve at least once per calendar year.

Y

664.1057(8)

Photo ☐

H. Each valve is monitored monthly to detect leaks according to ALL of the following: (NR 664.1063(2))

1. Monitoring complies with Method 21 in appendix A of 40 CFR part 60.
2. The detection instrument meets the performance criteria of Method 21.
3. The detection instrument is calibrated before each day of use.
4. Calibration gases consist of zero air (<10 ppm hydrocarbon in air) and a mixture of <10,000 ppm methane or n-hexane in air.
5. The instrument probe is traversed around all potential leak interfaces as closely as possible.

Y

664.1057(1)

Photo ☐

Note: The monthly monitoring requirement does not apply to valves subject to alternative standards.

I. If a leak (instrument reading  $\geq 10,000$  ppm) has not been detected for 2 successive months, the valve is monitored during the first month of the next quarter until a leak is detected.

Y

664.1057(3)(a)

Photo ☐

Note: Does not apply to valves subject to alternative standards.

J. If a leak is detected, the valve is monitored monthly until a leak is not detected for 2 successive months.

Y

664.1057(3)(b)

Photo ☐

Note: Does not apply to valves subject to the alternative standards.





Revision: 10/31/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - SUBCH. BB REQUIREMENTS FOR EQUIPMENT LEAKS

### Section 6: Standards for Valves in Gas or Vapor Service or in Light Liquid Service

K. First attempt at repair is made within 5 calendar days of detecting the leak.	Y	664.1057(4) Photo <input type="checkbox"/>
L. Repair is made as soon as practicable, but no later than 15 calendar days after detecting the leak, except when the repair is technically infeasible without equipment shutdown.	Y	664.1057(4) Photo <input type="checkbox"/>
M. If a leak is detected, the first attempt at repair includes best practices such as, but not limited to, tightening or replacing bonnet bolts, tightening packing gland nuts, or injecting lubricant into lubricated packing.	Y	664.1057(5) Photo <input type="checkbox"/>
N. If the repair is technically infeasible without equipment shutdown, the valve is repaired before the end of the next hazardous waste management unit shutdown.	N/A	664.1059(1) Photo <input type="checkbox"/>
O. If repair has been delayed, the valve is isolated from the hazardous waste management unit and the valve does not contain or contact hazardous waste with organic concentrations of $\geq 10\%$ by weight.	N/A	664.1059(2) Photo <input type="checkbox"/>
P. If valve repair has been delayed, the emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair.	N/A	664.1059(3) Photo <input type="checkbox"/>
Q. During delayed repair, the purged material is collected and destroyed or recovered in a control device.	N/A	664.1059(3) Photo <input type="checkbox"/>
Note: Complete the inspection form, "TSD Subch. AA & BB Standards for Closed Vent Systems and Control Devices".		
R. If repair of the valves has been delayed beyond a hazardous waste management unit shutdown, BOTH of the following are met: 1. The valve assembly supplies were sufficiently stocked, but depleted at the time of the shutdown. 2. Repair is not delayed beyond the next hazardous waste management unit shutdown unless it occurred within 6 months of the first shutdown.	N/A	664.1059(5) Photo <input type="checkbox"/>
S. When a leak in a valve is detected by an instrument reading of $\geq 10,000$ ppm, a weatherproof and readily visible identification is attached to the leaking valve which states ALL of the following: 1. Equipment ID number. 2. Date evidence of a potential leak was found. 3. Date the leak was detected.	N/A	664.1064(3) Photo <input type="checkbox"/>
T. The identification on the valve is removed after the valve has been monitored for two successive months and found to be leak-free.	Y	664.1064(3) Photo <input type="checkbox"/>

### Section 7: Standards for Pumps, Valves, Pressure Relief Devices and Connectors

A. The following equipment is used at the facility: If NO, go to Section 8. 1. Pumps or valves in heavy liquid service. 2. Pressure relief devices in light liquid or heavy liquid service. <i>in gas vapor service only</i> 3. Flanges. 4. Other connectors.	Y	 Photo <input type="checkbox"/>
B. The facility has marked each piece of equipment subject to subch. BB standards in a way that distinguishes it readily from other pieces of equipment.	N/A	664.1050(4) Photo <input type="checkbox"/>

*flanges & connectors are identified on isometrics*





Revision: 10/31/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - SUBCH. BB REQUIREMENTS FOR EQUIPMENT LEAKS

### Section 7: Standards for Pumps, Valves, Pressure Relief Devices and Connectors

C. If evidence of a potential leak is found by visual, audible, olfactory or some other detection method, monitoring is conducted according to ALL of the following within 5 days:

1. Monitoring complies with Method 21 in appendix A of 40 CFR part 60.
2. The detection instrument meets the performance criteria of Method 21.
3. The detection instrument is calibrated before each day of use.
4. Calibration gases consist of zero air (<10 ppm hydrocarbon in air) and a mixture of <10,000 ppm methane or n-hexane in air.
5. The instrument probe is traversed around all potential leak interfaces as closely as possible.

Note: This requirement does not apply to connectors that are inaccessible or are ceramic or ceramic-lined.

Y

664.1058

Photo ☐

D. When a leak is detected in a pump or valve by an instrument reading of  $\geq 10,000$  ppm, ALL of the following actions are taken:

1. A weatherproof and readily visible identification marked with the equipment ID number, date evidence of a potential leak was found and the date the leak was detected is attached to the leaking equipment.
2. The identification on the pump may be removed after repair.
3. The identification on a valve can be removed after it has been monitored for two successive months and found to be leak-free.

Y

664.1064(3)

Photo ☐

E. If a leak is detected, a first attempt at repair is made in 5 calendar days of detecting the leak.

Y

664.1058(3)

Photo ☐

F. Repair is made as soon as practicable, but no later than 15 calendar days after detecting the leak, except when the repair is technically infeasible without equipment shutdown.

Y

664.1057(4)

Photo ☐

G. If a leak is detected, the first attempt at repair includes best practices such as, but not limited to tightening or replacing bonnet bolts; tightening packing gland nuts; or, injecting lubricant into lubricated packing.

Y

664.1058(4)

Photo ☐

H. If the repair is technically infeasible without equipment shutdown, the valve or pump is repaired before the end of the next hazardous waste management unit shutdown.

N/A

664.1059(1)

Photo ☐

I. If repair has been delayed, the valve or pump is isolated from the hazardous waste management unit and does not contain or contact hazardous waste having organic concentrations  $\geq 10\%$  by weight.

N/A

664.1059(2)

Photo ☐

J. The valve repair has been delayed because the emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair.

N/A

664.1059(3)

Photo ☐

K. After delayed repair, the purged material is collected and destroyed or recovered in a control device.

N/A

664.1059(3)

Photo ☐

Note: Complete the inspection form, "TSD Subch. AA & BB Standards for Closed Vent Systems and Control Devices".

L. If pump repair has been delayed, the repair requires use of a dual mechanical seal system that includes a barrier fluid system.

N/A

664.1059(4)

Photo ☐

M. Repair is completed as soon as practicable, but within 6 months of detecting the leak.

N/A

664.1059(4)

Photo ☐

N. If valve repair has been delayed beyond a hazardous waste management unit shutdown, the valve assembly supplies were sufficiently stocked, but depleted at the time of the shutdown.

N/A

664.1059(5)

Photo ☐





Revision: 10/31/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - SUBCH. BB REQUIREMENTS FOR EQUIPMENT LEAKS

### Section 7: Standards for Pumps, Valves, Pressure Relief Devices and Connectors

O. Repair is not delayed beyond the next hazardous waste management unit shutdown, unless it occurred within 6 months of the first shutdown.

N/A

664.1059(5)

Photo ☐

### Section 8: Alternative Standards for Valves in Gas or Vapor Service or in Light Liquid Service

A. The owner or operator elected to comply with the alternative standard of allowing 2% or less of the valves to leak. (NR 664.1061(1)) If NO, go to Section 9.

N/A

Photo ☐

B. The owner or operator notified the department that they have elected to comply with the alternative standard.

N/A

664.1061(2)(a)

Photo ☐

C. Except for valves that have no detectable emissions or valves that are designated as unsafe-to-monitor or difficult-to-monitor, a performance test was conducted by monitoring each valve in gas, vapor or light liquid service according to ALL of the following: (NR 664.1063(2))  
1. Monitoring complies with Method 21 in appendix A of 40 CFR part 60.  
2. The detection instrument meets the performance criteria of Method 21.  
3. The detection instrument is calibrated before each day of use.  
4. Calibration gases consist of zero air (<10 ppm hydrocarbon in air) and a mixture of <10,000 ppm methane or n-hexane in air.  
5. The instrument probe is traversed around all potential leak interfaces as closely as possible.

NA

664.1061(3)(a)

Photo ☐

D. The leak percentage was determined by dividing the number of valves for which leaks are detected (instrument reading of  $\geq 10,000$  ppm) by the total number of valves within the hazardous waste management unit during the performance test.

NA

664.1061(3)(c)

Photo ☐

Note: Only valves with detectable emissions or valves that are not designated as unsafe-to-monitor or difficult-to-monitor should be included in the calculations.

E. The performance test is conducted initially upon designation, annually and at other times requested by the department.

NA

664.1061(2)(b)

Photo ☐

F. If a leak is detected, the first attempt at repair is made within 5 calendar days of detecting the leak. (NR 664.1057)

NA

664.1061(2)(c)

Photo ☐

G. First attempt at repair includes best practices such as, but not limited to tightening or replacing bonnet bolts, tightening packing gland nuts, and injecting lubricant into lubricated packing. (NR 664.1057)

NA

664.1061(2)(c)

Photo ☐

H. Repair is made as soon as practicable, but no later than 15 calendar days after detecting the leak, except when the repair is technically infeasible without equipment shutdown. (NR 664.1057)

NA

664.1061(2)(c)

Photo ☐

I. If the owner or operator no longer complies with the alternative standards, they notified the department in writing that they will comply with the subch. BB standards for valves.

NA

664.1061(4)

Photo ☐

### Section 9: Alternative Standards for Valves in Gas or Vapor Service or in Light Liquid Service

A. The owner or operator elected to comply with alternative leak detection and repair standards for all valves in a hazardous waste management unit. (NR 664.1062(1)(a)) If NO, go to Section 10.

N/A

Photo ☐





Revision: 10/31/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - SUBCH. BB REQUIREMENTS FOR EQUIPMENT LEAKS

### Section 9: Alternative Standards for Valves in Gas or Vapor Service or in Light Liquid Service

B. The owner or operator notified the department that they have elected to comply with the alternative standards.	N/A	664.1062(1)(b) Photo <input type="checkbox"/>
C. The facility monitors for leaks according to EITHER of the following schedules: 1. Valves are monitored for leaks once every 6 months after 2 consecutive quarterly leak detection periods have 2% or less of the valves leaking. 2. Valves are monitored for leaks once every year after 5 consecutive quarterly leak detection periods have 2% or less of the valves leaking. Note: Only applies to valves with detectable emissions or valves that are not designated as unsafe-to-monitor or difficult-to-monitor.	NA	664.1062(2) Photo <input type="checkbox"/>
D. If the percentage of leaking valves is 2% or greater, the facility returns to more frequent monitoring as described below: 1. Monthly monitoring is resumed. 2. When a leak is not detected for 2 successive months, the valve is monitored quarterly. 3. The facility has resumed monitoring every 6 months or every year according to the alternative standards. Note: Applies to valves with detectable emissions or valves that are not designated as unsafe-to-monitor or difficult-to-monitor in the calculations.	NA	664.1062(2)(d) Photo <input type="checkbox"/>

### Section 10: Test Methods and Procedures

A. The waste analysis plan includes a determination of whether each piece of equipment contains or contacts a hazardous waste with an organic concentration of $\geq 10\%$ by weight using ANY of the following: 1. ASTM method D2267-88, E169-87, E168-88 or E260-85. 2. SW-846 method 9060 or 8260. 3. Applying knowledge of the nature of the hazardous waste stream or the process by which it was produced.	Y	664.1063(4) Photo <input type="checkbox"/>
B. If the owner or operator initially made a determination that a piece of equipment contained or contacted hazardous waste with organic concentrations of $\geq 10\%$ , that determination is revised only after analysis by the ASTM or SW-846 methods stated in 10.A.	N/A	664.1063(5) Photo <input type="checkbox"/>
C. Samples used to determine the percent organic content are representative of the highest total organic content hazardous waste expected to be contained or in contact with the equipment.	N/A	664.1063(7) Photo <input type="checkbox"/>
D. To determine if pumps or valves are in light liquid service, the vapor pressures of constituents are obtained by standard reference texts or ASTM method D2879-86.	N/A	664.1063(8) Photo <input type="checkbox"/>

### Section 11: Recordkeeping and Reporting

A. If more than one hazardous waste management unit is subject to subch. BB, records for the different units are kept in one record keeping system in a way that each hazardous waste management unit record is identified.  Note: Inaccessible or ceramic connectors are exempt from all recordkeeping and reporting requirements, per NR 664.1058(5).	Y	664.1064(1)(b) Photo <input type="checkbox"/>
---	---	--





Revision: 10/31/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - SUBCH. BB REQUIRMENTS FOR EQUIPMENT LEAKS

### Section 11: Recordkeeping and Reporting

B. ALL of the following information is recorded into the facility operating record for each piece of equipment subject to subch. BB:

1. Equipment ID number and hazardous waste management unit ID.
2. Approximate locations within the facility, such as on a facility plot plan.
3. Type of equipment (e.g. pump or valve).
4. Percent-by-weight total organics in the hazardous waste stream at the equipment.
5. State of the hazardous waste at the equipment (e.g. gas, vapor, liquid).
6. Method of compliance with the standard (e.g., monthly leak detection and repair).

Y

664.1064(2)(a)

Photo ☐

C. When a leak is detected in a pump, compressor or valve, ALL of the following information is recorded in an inspection log.

1. Instrument and operator ID numbers and the equipment ID number.
2. Date evidence of a potential leak was found.
3. Date the leak was detected.
4. Dates of each attempt to repair the leak.
5. Repair methods used in each repair attempt.
6. "Above 10,000" if that is the maximum instrument reading measured after the repair attempt.
7. "Repair delayed" and the reason for the delay if the leak is not repaired within 15 calendar days from discovery of the leak.
8. Documentation supporting the delay of repair of a valve.
9. The signature of the owner or operator who decides the repair could not be effected without a hazardous waste management unit shutdown.
10. The expected date of successful repair if the leak is not repaired within 15 calendar days.
11. The date of successful repair of the leak.

Y

664.1064(4)

Photo ☐

D. Information regarding leaks in pumps, compressors or valves is kept for at least 3 years.

Y

664.1064(12)

Photo ☐

E. ALL of the following information for all equipment subject to subch. BB is kept in the operating log:

1. List of ID #'s for all equipment, except welded fittings, subject to subch. BB.
2. A list of ID #'s for pumps in light liquid service, compressors, or valves in gas or vapor service or in light liquid service designated for no detectable emissions (instrument reading of <500 ppm above background).
3. Designation of the equipment as having no detectable emissions is signed by the owner or operator.
4. List of equipment ID #'s for pressure relief devices operated with no detectable emissions.
5. Dates of each compliance test for no detectable emissions.
6. Background level measured during each compliance test.
7. Maximum instrument reading measured at the equipment during each compliance test.

Y

664.1064(7)

Photo ☐

F. For valves designated as unsafe-to-monitor or difficult-to-monitor, the following information is recorded in the operating log:

1. List of ID #'s.
2. Explanation for each valve stating why the valve is unsafe to monitor or difficult to monitor.
3. Plan for monitoring each valve.

Y

664.1064(8)

Photo ☐

G. For valves complying with the alternative standards for skip period leak detection and repair, the monitoring schedule and percent of valves found leaking during each monitoring period are recorded in the operating record.

NA

664.1064(9)

Photo ☐

H. For pumps and compressors, ALL of the following information is recorded in the operating record:

1. The criteria that indicates failure of the seal system, the barrier fluid system or both.
2. An explanation of the design criteria.
3. Any changes to these criteria and the reasons for the changes.

Y

664.1064(10)

Photo ☐





Revision: 10/31/2011  
WASTE & MATERIALS  
MANAGEMENT PROGRAM

## TREATMENT & STORAGE FACILITY INSPECTION - SUBCH. BB REQUIREMENTS FOR EQUIPMENT LEAKS

### Section 11: Recordkeeping and Reporting

1. If the facility does not repair leaks from valves, pumps and compressors as required or operates the control device in exceedance of the design specifications for more than 24 hours, a semiannual report is submitted to the department by the specified date that includes ALL of the following information:

1. The EPA ID #, name and address of the facility.
2. For each month during the semiannual reporting period, the equipment ID number for each valve, pump and compressor for which a leak was not repaired.
3. Dates of hazardous waste management unit shutdowns.
4. For each month that the control device operated outside design specifications and was not corrected within 24 hours, the duration, cause of each exceedance, and any corrective measures taken.

P/A

664.1065(1)

Photo ☐

*include a statement that all leaks were repaired.*

---

# Appendix C

---

## Documents received during the Inspection:

- Site Map (marked)
- Hydrite SOP - Leak Detection and Repair Program Manual
- January 4, 2012, Tank Assessment for T205
- Training Log (2015) for Hazardous Waste Awareness
- Hazardous Waste Awareness Training presentation
- Process Vent Statement of Certification (Subpart AA)
- Hazardous Waste Tank Statement of Certification (Subpart CC)
- Hydrite Waste Onhand Report for September 22, 2015

---

### **Inspection Date:**

September 21-23, 2015

### **Facility Name and ID Number:**

Hydrite Chemical Company  
WID000808824

### **Inspector:**

Brenda Whitney  
Compliance Section 2  
RCRA Branch  
Land and Chemicals Division

---





## HYDRITE CHEMICAL CO. STANDARD OPERATING PROCEDURE

Original SOP Effective Date: 11/1/2014	Supersedes SOP Dated: [Supersedes SOP Date]	Effective Date: 11/1/2014	Procedure No.: RH043CG
Facility: CG	Approval Name: Dave Welsh		Revision No.: 0.0
Review Frequency: 1 Year(s)	Approval Title: EHS Manager		Page 1 of 15
This is an electronically controlled document when viewed at: <a href="http://myhydrite/PoliciesAndProcedures/Published_SOPPs/[filename]">http://myhydrite/PoliciesAndProcedures/Published_SOPPs/[filename]</a> An uncontrolled copy cannot be used to manage a process or task.			

**I. TITLE:** LEAK DETECTION AND REPAIR PROGRAM MANUAL

**II. PURPOSE:** The purpose of this Leak Detection and Repair (LDAR) Program Manual is to provide a comprehensive framework to document practices deployed by Hydrite Chemical Co. (Hydrite) and its contractors to conform with the requirements of applicable state and federal regulatory agencies for implementation of LDAR programs. The LDAR manual will specify the regulatory requirements and facility-specific procedures for recordkeeping certifications, monitoring, and repairs. In addition, it will delineate the roles of each person on the LDAR team as well as document all the required procedures to be completed and data to be gathered, thus establishing accountability. The plan will also identify the process units and equipment subject to the applicable LDAR regulations.

The objectives of the LDAR program are to:

- Ensure conformance to the requirements of RCRA Subpart BB and the Off-Site Waste NESHAP (40 CFR 63, Subpart DD);
- Ensure conformance to the LDAR requirements specified in the facility CAAPP Title V Operation Permit (113063390-P12);
- Document practices to ensure conformance by facility employees and contractors;
- Reduce product losses: saleable products are lost whenever emissions escape from process equipment, which generally translates to lost revenue;
- Increase worker safety by minimizing chemical exposure to employees and contractors. Reducing emissions from leaking equipment has a direct benefit of reducing occupational exposure to hazardous compounds; and
- Minimize releases to the environment and surrounding community to avoid environmental impacts and long-term exposure to hazardous compounds.

**III. APPLICATION:** This manual applies to all Hydrite employees and contractors who have responsibilities necessary to achieve compliance with applicable LDAR requirements. Specific responsibilities are detailed in Section 13.

**IV. DEFINITIONS:** Closed Vent System – A system that is not open to the atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.

Condenser – A heat-transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

Connector – Flanged, screwed, welded, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not



covered by insulation or other materials that prevent location of the fittings.

Continuous Recorder – Data-recording device recording an instantaneous data value at least once every 15 minutes.

Control Device – An enclosed combusting device, vapor recovery system, or flare. Any device the primary function of which is the recovery or capture of solvents or other organics for use, reuse, or sale (e.g. a primary condenser on a solvent recovery unit) is not a control device.

Control Device Shutdown – The cessation of operation of a control device for any purpose.

Double Block and Bleed System – Two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

First Attempt at Repair – To take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

Hazardous Waste Management Unit Shutdown – A work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit for less than 24 hours is not a hazardous waste management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous waste management unit shutdowns.

In Gas/Vapor Service – The piece of equipment contains or contacts a hazardous waste stream that is in the gaseous state at operating conditions.

In Heavy Liquid Service – The piece of equipment is not in gas/vapor service or in light liquid service.

In Light Liquid Service – The piece of equipment contains or contacts a waste stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals (kPa) at 20°C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kilopascals (kPa) at 20°C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions.

In VOC Service – The piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight.

Instrumentation System – A group of equipment components used to condition and convey a sample of the process fluid to analyzers and instruments for the purpose of determining process operating conditions (e.g. composition, pressure, flow, etc.). Valves and connectors are the predominant type of equipment used in instrumentation systems; however, other types of equipment may also be included in these systems. Only valves nominally 0.5 inches and smaller, and connectors nominally 0.75 inches and smaller in diameter are considered instrumentation systems for the purposes of this subpart. Valves greater than nominally 0.5 inches and connectors greater than nominally 0.75 inches associated with instrumentation systems are not considered part of instrumentation systems and must be monitored individually.

Leak Detection and Repair (LDAR) – the leak detection and repair activities required by any "equipment leak" provisions that: (i) require the use of Method 21





to monitor for equipment leaks and also require the repair of leaks discovered through such monitoring; and (ii) are intended to minimize emissions of hazardous air pollutants or other substances on the basis of toxicity (e.g., toxic air contaminants).

Open-Ended Line (OEL) – Any valve, except pressure relieve valves, having one side of the valve seat in contact with process fluid and one side open to atmosphere, either directly or through open piping.

Pressure Relief Device or Valve – a safety device used to prevent operating pressures from exceeding the maximum allowable working pressure of the process equipment. A common pressure relief device is a spring-loaded pressure relief valve. Devices that are actuated either by a pressure of less than or equal to 2.5 psig or by a vacuum are not pressure relief devices.

Process Improvement – routine changes made for safety and occupational health requirements, for energy savings, for better utility, for ease of maintenance and operation, for correction of design deficiencies, for bottleneck removal, for changing product requirements, or for environmental control.

Sampling Connection System – An assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take non-routine grab samples is not considered a sampling connection system.

Storage Vessel – a tank or other vessel that is used to store organic liquids that are used in the process as raw material feedstocks, produced as intermediates or final products, or generated as wastes. Storage vessel does not include vessels permanently attached to motor vehicles, such as trucks, railcars, barges, or ships.

- V. ASSOCIATED MATERIAL(S):**
- Emergency Response Manual 7.0
  - Hydrite Process & Instrumentation Drawings
  - LDAR Equipment Isometric Drawings
  - LDAR Repair Workflow, RH043CGb (attached)
  - Management of Change, SOP QA005AF
  - Selection, Management and Training of contractors, SOP MN005AF
  - Wisconsin DNR Determination for Connector Tagging, RH043CGa (attached)

**VI. PROCEDURE:**

1. Hydrite Chemical Co. (Hydrite) operates a chemical manufacturing facility that processes and distributes organic chemicals, and stores and recycles hazardous waste. The facility operates under a CAAPP Title V Operation Permit and is a synthetic minor emitter of HAP. The facility also maintains a RCRA Part B Permit, allowing it to receive, process, and recycle hazardous waste. The facility is subject to RCRA Subpart BB (NR 664) and the Off-Site Waste NESHAP (40 CFR 63, Subpart DD).
2. LDAR Program Applicability
  - 2.1. Applicable Regulations
    - 2.1.1. NR 664, Subpart BB – Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
    - 2.1.2. 40 CFR 63, Subpart DD – National Emission Standards for Hazardous Air Pollutants: Off-Site Waste and Recovery Operations
    - 2.1.3. Regulations referenced in CAAPP Title V Operations Permit 113063390-P12, Section I.A.1, NR 429.03 – Malodorous Emissions





## 2.2. Hydrite Equipment LDAR Applicability

2.2.1. NR 664, Subpart BB – Equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight. Note: Hydrite assumes that all hazardous waste at the facility contains organic concentrations of at least 10% by weight.

2.2.1.1. Storage Tanks – 204, 205, 212, 213, 214, 215, 218, 219, 220, 221, 222, 228, 235, 241, 242, 401, 402, 405, 406

2.2.1.2. Vacuum Pot Still

2.2.1.3. Distillation Unit – Column 1

2.2.1.4. Thin-Fill Evaporation Units – Luwa 1 and Luwa 4

2.2.1.5. The following units are excluded from NR 664.1052 to NR 664.1060 because they process hazardous waste less than 300 hours per year, and are cleaned of hazardous waste when not in service.

2.2.1.5.1. Thin-Film Evaporation Unit – Luwa 3

2.2.1.5.2. Distillation Units – Column 2 and Column 3

2.2.2. 40 CFR 63, Subpart DD – Equipment at a facility that receives off-site materials and is regulated as a Hazardous Waste TSDF under NR 664.

2.2.2.1. Storage Tanks – 212, 213, 214, 215, 218, 219, 220, 221, 241, 242

2.2.2.2. Distillation Unit – Column 1

2.2.2.3. Thin-Film Evaporation Units – Luwa 1 and Luwa 4

2.2.3. CAAPP Operation Permit – Equipment associate with storage tanks and their emission control devices require Method 21 monitoring to prevent malodorous emissions.

2.2.3.1. Storage Tanks located in the 100, 200, 300 and 400 tank farms

2.2.3.2. Storage Tanks located at Cottage Grove West

## 2.3. Approximate Equipment Count by Process Unit Type

2.3.1. The following tables provide information on the equipment counts for each applicable process unit type. The table is provided only to give an idea of the approximate quantity of subject equipment.

Table 2-1  
Approximate LDAR Equipment Count Information

Hazardous Waste Unit	Valves	Connectors	Pumps and Agitators	Compressors	Flame Arrestors	Instrument	Pressure / Vacuum Relief Devices	Totals
Storage Tanks / Tank Farms	1,285	9,342	103	0	30	224	223	11,207
Columns	50	236	2	0	0	23	1	312
Luwas	118	770	10	0	0	26	1	925
Pot Still	10	124	0	0	0	1	0	135
Vacuum Pumps	51	430	3	0	0	16	0	500
Control Devices	94	2	0	0	0	0	2	98
<b>Totals</b>	<b>1,608</b>	<b>10,904</b>	<b>118</b>	<b>0</b>	<b>30</b>	<b>290</b>	<b>227</b>	<b>13,177</b>



3. LDAR Program Requirements

3.1. LDAR Equipment Identification

- 3.1.1. Currently, light liquid and gas/vapor equipment subject to the RCRA Subpart BB regulations at the facility are identified in the field using stainless steel tags. The tag numbers are equivalent to the equipment identification numbers assigned in Maximo and recorded on P&IDs for the process units.
- 3.1.2. Equipment subject to LDAR monitoring through the CAAPP Operation Permit are identified on isometric drawings maintained and used by the LDAR Contractor. A copy of the drawings is kept on file at the facility.
- 3.1.3. Not all flanges and connectors subject to LDAR monitoring are physically marked in the facility.
  - 3.1.3.1. Flanges and connectors with a regulatory monitoring requirement are identified in the facility LDAR database and included on applicable equipment isometric drawings.
  - 3.1.3.2. Reference attachment RH043CGa for supporting documentation from the Wisconsin DNR regarding alternatives to marking flanges and connectors.

3.2. Monitoring Equipment

- 3.2.1. The monitoring equipment used at the facility will meet the requirements of the applicable regulations and the performance criteria of EPA Method 21 – Determination of Volatile Organic Compound Leaks codified at Appendix A of 40 CFR 60.
- 3.2.2. The detection instrument shall be calibrated before use on each day of its use as specified in Method 21. The calibration gas should consist of zero air and a mixture of < 10,000 ppm methane or n-hexane in air.
- 3.2.3. During monitoring, the instrument probe must be traversed around all potential leak interfaces as closely as possible.

3.3. Database

- 3.3.1. The facility uses an electronic database to manage the LDAR equipment inventory, including scheduling monitoring and repair activities, and maintaining a monitoring history.
- 3.3.2. Managing the database is the responsibility of the LDAR Contractor. Access to the database is provided to the Hydrite LDAR Administrator for periodic reporting and QA/QC purposes.

4. Leak Definitions and Monitoring Frequencies

4.1. NR 664 Subpart BB, 40 CRF 63 Subpart DD

4.1.1. Pumps in Light Liquid Service [NR664.1052]

- 4.1.1.1. Frequency – Monthly Method 21 Monitoring and Weekly Visual Inspection
- 4.1.1.2. Leak Definition – 10,000 ppm instrument reading or liquids dripping from the pump seal
- 4.1.1.3. Repair Timeline –
  - 4.1.1.3.1. First attempt at repair must be made within 5 days of detecting the leak. First attempt at repair includes best practices such as, but not limited to, tightening the packing gland.
  - 4.1.1.3.2. Repair should be completed as soon as practicable, but no later than 15 calendar days after detecting the leak, except when the repair is technically infeasible without equipment shutdown.





- 4.1.1.4. Hydrite does not have any of the following LDAR-applicable pumps.
  - 4.1.1.4.1. Pumps equipped with a closed-vent system capable of capturing and transporting leakage from seals to a control device.
  - 4.1.1.4.2. Dual mechanical seal system and barrier fluid system pumps.
  - 4.1.1.4.3. Pumps designated as operating with no detectable emissions.
- 4.1.2. Compressors – Hydrite does not operate any LDAR-applicable compressors.
- 4.1.3. Pressure Relief Devices in Gas/Vapor Service [NR664.1054]
  - 4.1.3.1. All pressure relief devices are equipped with a closed-vent system capable of capturing and transporting leakage to a control device (e.g. thermal oxidizer or carbon adsorption drum).
  - 4.1.3.2. Frequency – Method 21 Monitoring within 5 days of a release
  - 4.1.3.3. Leak Definition – 500 ppm instrument reading or No Detectable Emissions
    - 4.1.3.3.1. The leak definition (500 ppm) is compared to the arithmetic difference between the maximum concentration indicated by the instrument during the inspection and the background level.
    - 4.1.3.3.2. Background level is determined according to Method 21.
  - 4.1.3.4. Repair Timeline –Monitoring using Method 21 should be used to confirm that the device has returned to a condition of “no detectable emissions” no later than 5 days after a release, except when the repair is technically infeasible without equipment shutdown.
- 4.1.4. Sampling Connection Systems – Hydrite does not operate any LDAR-applicable sampling connection systems.
- 4.1.5. Valves in Gas/Vapor or Light Liquid Service [NR664.1057]
  - 4.1.5.1. Frequency – Monthly Method 21 Monitoring
    - 4.1.5.1.1. Any valve with no leak detected for 2 successive months will be monitored the first month of every succeeding quarter until a leak is detected.
    - 4.1.5.1.2. If a leak is detected, the valve is monitored monthly until a leak is not detected for two successive months.
  - 4.1.5.2. Leak Definition – 10,000 ppm instrument reading
  - 4.1.5.3. Repair Timeline –
    - 4.1.5.3.1. First attempt at repair must be made within 5 days of detecting the leak. First attempt at repair includes best practices such as, but not limited to, tightening or replacing bonnet bolts, tightening packing gland nuts, or injecting lubricant into lubricated packing.
    - 4.1.5.3.2. Repair should be completed as soon as practicable, but no later than 15 calendar days after detecting the leak, except when the repair is technically infeasible without equipment shutdown.
  - 4.1.5.4. Hydrite does not have any of the following LDAR-applicable valves.
    - 4.1.5.4.1. Valves designated as operating with no detectable emissions.
    - 4.1.5.4.2. Valves designated as unsafe-to-monitor (UTM).
  - 4.1.5.5. Hydrite has not elected to comply with any alternative standards for valves operating in gas/vapor or light liquid service.





4.1.6. Pumps/Valves in Heavy Liquid Service, Pressure Relief Devices in Light or Heavy Liquid Service, Flanges, and Other Connectors [NR664.1058]

4.1.6.1. Frequency –

4.1.6.1.1. Method 21 monitoring within 5 days of finding a leak through an audible, visual, or olfactory detection

4.1.6.1.2. Monitoring is not required for connectors that are inaccessible

4.1.6.2. Leak Definition – 10,000 ppm instrument reading

4.1.6.3. Repair Timeline –

4.1.6.3.1. First attempt at repair must be made within 5 days of detecting the leak. First attempt at repair includes best practices such as, but not limited to, tightening or replacing bonnet bolts, tightening packing gland nuts, or injecting lubricant into lubricated packing.

4.1.6.3.2. Repair should be completed as soon as practicable, but no later than 15 calendar days after detecting the leak, except when the repair is technically infeasible without equipment shutdown.

4.1.6.4. Hydrite does not have any of the following LDAR-applicable equipment.

4.1.6.4.1. Pumps or valves operating in heavy liquid service

4.1.6.4.2. Pressure relief devices operating in light or heavy liquid service

4.2. Leak Definitions and Monitoring Frequencies – **CAAPP Operation Permit, NR 429**

4.2.1. Frequency – Method 21 monitoring every 6 months

4.2.2. Leak Definition –

4.2.2.1. 10,000 ppm instrument reading for flanges, valves and other connectors

4.2.2.2. 500 ppm instrument reading for pressure release valves, except during pressure releases

4.2.3. Repair Timeline – Leaks must be repaired as soon as practicable, but no later than 15 calendar days after the leak was detected.

4.3. Difficult to Monitor (DTM) Equipment

4.3.1. Difficult to Monitor (DTM) equipment is defined in various LDAR regulations to mean components which cannot be monitored without elevating personnel more than 2 meters above a support surface. Support surfaces are the ground or any permanent platform which meets applicable operational and safety standards (e.g., handrails, toe-boards, etc.).

4.3.2. Only valves that meet DTM specifications require LDAR monitoring, and these should be monitored on an annual basis. Connectors that are inaccessible do not require Method 21 monitoring.

4.4. Unsafe to Monitor (UTM) – Hydrite does not have any equipment which is classified as being Unsafe to Monitor.

4.5. Open-Ended Line (OEL) Control [NR664.1056]

4.5.1. Open-ended lines are any valve, except pressure relief devices, having one side of the valve seat in contact with hazardous waste and one side open to the atmosphere, either directly or through open piping. Under LDAR standards, each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.



- 4.5.2. The cap, blind flange, plug, or second valve must seal the open end at all times except during operations require hazardous waste to flow through the open-ended valve or line.
- 4.5.3. In systems when a second valve is used, the system shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.
- 4.5.4. When a double block-and-bleed system is used, the bleed valve or line only remains open when the line between the block valves is vented.

5. Monitoring and Repair

- 5.1. Monitoring for leaks and the repair of leaking equipment at the Hydrite facility follows the sequence shown in attachment RH043CGb.doc. The sequence starts with a leaking component being detected.
- 5.2. Leaks found by Audible, Visual, or Olfactory (AVO) means will follow the same monitoring and repair sequence shown in the attachment, other than if initial monitoring does not need to be performed. The leak log is not required to include initial monitoring results for AVO leaking components.

6. Leaking Components

- 6.1. When leaks are identified by the LDAR Contractor, the LDAR Contractor takes ownership of the leak repair process after notifying the Hydrite LDAR Administrator. Leaks identified by Hydrite personnel through AVO inspections become the responsibility of that employee.
- 6.2. Hydrite Maintenance personnel are notified of the leak and a Maintenance Work Order is generated to ensure that an initial attempt to repair the leaking component is made within 5 days.
- 6.3. A weatherproof and visible identification tag must be attached to the leaking component.
  - 6.3.1. The tag should indicate the equipment identification number, the date evidence of the potential leak was found, and the date the leak was detected.
  - 6.3.2. Leak tags on equipment, except valves, may be removed after a successful repair of the leak. Leak tags on valves may be removed after the valve has been monitored for 2 successive months and no leak has been detected during those months.
- 6.4. The LDAR Contractor uses a leak log to record relevant information which will be entered into the LDAR database to keep records of the leak. The following information is included in the leak log:
  - 6.4.1. The date the leak was detected and the date of the first attempt, and each subsequent attempt, to repair the leak;
  - 6.4.2. The date of successful repair of the leak;
  - 6.4.3. Maximum instrument reading measured by Method 21 of 40 CFR Part 60, Appendix A corresponding to the discovery of the leak, each attempt to repair the leak, and after the leak is successfully repaired or determined to be non-repairable.
  - 6.4.4. If a leak is non-repairable or cannot be repaired within 15 days, "Repair Delayed" and the reason the leak is non-repairable.
  - 6.4.5. Dates of process unit shutdowns that occur while leaking components are present.
- 6.5. For any equipment put on Delay of Repair (DOR) (as described in Section 7.), the reason for placing the equipment on DOR must be specified. In addition, a form authorizing the delay in repair must be signed and dated by the Hydrite EHS Manager.

7. Delay of Repair (DOR) [NR664.1059]

- 7.1. Delay of Repair requests will be made using the "Leaking Component Log." The LDAR Contractor will notify the Hydrite LDAR Administrator of all Delay of Repair (DOR) requests. Only the Hydrite EHS Manager can approve the use of the DOR provision.





- 7.2. If leaking equipment cannot be repaired within 15 days, additional information must be specified in the "Leaking Component Log."
    - 7.2.1. Confirm that the repair is not technically feasible without a process unit shutdown.
      - 7.2.1.1. An explanation of why the repair is not technically feasible without a process unit shutdown must be provided.
      - 7.2.1.2. Repair must be accomplished before the end of the next process unit shutdown.
    - 7.2.2. Confirm that the equipment is isolated from the hazardous waste management unit and that it does not continue to contain or contact hazardous waste with organic concentrations at least 10 percent by weight.
    - 7.2.3. It is Hydrite's responsibility to notify the LDAR Contractor when the equipment has been repaired and returned to service.
  - 7.3. DOR for Valves and Connectors is allowed if all of the following conditions are met:
    - 7.3.1. Emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and
    - 7.3.2. Purged material is collected and destroyed or recovered in a control device complying with NR 664.1060.
    - 7.3.3. Delay of repair beyond a hazardous waste management unit shutdown will be allowed for a valve if both of the following conditions are met.
      - 7.3.3.1. Valve assembly replacement is necessary to complete the repair
      - 7.3.3.2. The facility valve assembly supplies were sufficiently stocked, but are depleted at the time of the hazardous waste management unit shutdown.
      - 7.3.3.3. Repair completion cannot be delayed beyond the next hazardous waste management unit shutdown, unless the next shutdown occurs within 6 months of the first shutdown.
  - 7.4. DOR for Pumps is allowed if the repair requires the use of a dual mechanical seal system that includes a barrier fluid system. Repair must be completed as soon as practicable, but not later than six months from the date the leak was detected.
8. Out of Service (OOS)
- 8.1. Components are determined to be Out of Service (OOS) when all of the following criteria apply to the component at the time of required Method 21 monitoring and/or visual inspection.
    - 8.1.1. The component is not in VOC/HAP service as indicated by the equipment being empty of process material and documented cleaning having taken place;
    - 8.1.2. The component will not return to service prior to the end of its current scheduled monitoring period; and
    - 8.1.3. If the component(s) is expected to be OOS for longer than 1 year, then the component(s) should be deactivated.
  - 8.2. The electronic database does NOT send a reminder when the component is expected to return to service.
  - 8.3. Components that are in service for any length of time during a monitoring period are expected to be monitored. For example, valves that are monitored quarterly may be OOS for two months during the quarter. However, because they were in service for one month out of the quarter, they are expected to be monitored.
  - 8.4. OOS is to be used only when components have been OOS for the entire monitoring period. Any exceptions to this must be discussed with the Hydrite LDAR Administrator and the EHS Department.





9. Training

- 9.1. LDAR Contractor employees are expected to receive initial training through a formal Training Program provided by their employer. In particular, the training should highlight Method 21 monitoring requirements and electronic database management.
- 9.2. LDAR Contractor employees are also expected to complete Hydrite-specific training as required and outlined in MN005AF – Selection, Management and Training of Contractors.
- 9.3. Periodic LDAR program training will be provided for the Hydrite LDAR Administrator, EHS department, and maintenance, operations, and engineering personnel to maximize compliance with LDAR requirements.

10. Management of Change

- 10.1. Changes to the facility, equipment, processes, or materials are initiated, managed, reviewed, and approved following QA005AF – Management of Change.
- 10.2. The MOC process includes a check for impact to the LDAR program. If affected, the change must be reviewed by the Hydrite LDAR Administrator.

11. Recordkeeping [NR664.1064]

- 11.1. Hydrite has implemented the use of an electronic LDAR database to maintain LDAR monitoring records. In support of the electronic database are the facility P&IDs and the LDAR Contractor generated isometric drawings, which indicate those process lines that are part of the LDAR program and the LDAR equipment identification numbers and locations.
- 11.2. The electronic LDAR database is considered to be part of the facility operating record.
- 11.3. LDAR Equipment Identification Records – For each piece of equipment to which NR 664, Subpart BB applies, the following information must be recorded in the facility operating record.
  - 11.3.1. Equipment identification number and hazardous waste management unit identification
  - 11.3.2. Approximate locations within the facility
  - 11.3.3. Type of equipment
  - 11.3.4. Percent-by-weight total organics in the hazardous waste stream at the equipment.  
Note: Hydrite assumes that all hazardous waste at the facility contains organic concentrations of at least 10% by weight.
  - 11.3.5. State of the hazardous waste at the equipment
  - 11.3.6. Method of compliance with the standard
- 11.4. Leaking Equipment Records – The following information shall be recorded in the leak log and/or maintenance work order.
  - 11.4.1. Instrument and operator identification numbers and the equipment identification number;
  - 11.4.2. Date evidence of a potential leak was found according to NR 664.1058 (1);
  - 11.4.3. Date the leak was detected, and dates of each attempt to repair the leak;
  - 11.4.4. Repair methods applied in each attempt to repair the leak;
  - 11.4.5. "Above 10,000" if the maximum instrument reading measured by the methods specified in NR 664.1063 (2) after each repair attempt is equal to or greater than 10,000 ppm;
  - 11.4.6. "Repair Delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak;
  - 11.4.7. Documentation supporting DOR of a valve necessary for compliance with NR 664.1059 (3);



- 11.4.8. The signature of the owner or operator whose decision it was that the repair could not be affected without a hazardous waste management unit shutdown; and
- 11.4.9. The expected date of successful repair of the leak if not repaired within 15 calendar days, and;
- 11.4.10. The date of successful repair of the leak.
- 11.5. Closed-Vent System Records – Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with NR 664.1060 shall be recorded and kept up-to-date in the facility operating record.
- 11.6. RCRA Subpart BB Records – The following information pertaining to all equipment subject NR 664.1052 to NR 664.1060 must be kept in the facility operating record.
  - 11.6.1. List of identification numbers for equipment, except welded fittings, including pressure relief devices required to comply with NR 664.1054 (1) and equipment in vacuum service.
  - 11.6.2. List of identification numbers that Hydrite has elected “no detectable emissions,” as indicated by an instrument reading of less than 500 ppm. Designation of this equipment is signed by the owner or operator.
  - 11.6.3. Date of each compliance test as well as the background level measured and maximum instrument reading during each test.
  - 11.6.4. Identification, by list or location, of equipment that contains or contacts hazardous waste with an organic concentration of at least 10% by weight for less than 300 hours per calendar year.
- 11.7. Valve Records – The following information pertaining to all valves must be kept in the facility operating record.
  - 11.7.1. List of identification numbers for valves designated as unsafe-to-monitor, including explanation and plan for monitoring each valve. Note: Hydrite has not designated any valves as being unsafe-to-monitor.
  - 11.7.2. List of identification numbers for valves designated as difficult-to-monitor, including explanation and plan for monitoring each valve.
  - 11.7.3. For valves complying with NR 664.1062, a schedule of monitoring and the percent of valves found leaking during each monitoring period must be recorded in the facility operating record. Note: Hydrite does not employ any alternative standards for valves in gas/vapor service or light liquid service.
- 11.8. Facility operating log should also include criteria required in NR 664.1052(4)(e)(2) and NR 664.1053(5)(b), including an explanation, as well as any changes to these criteria and reasons for the changes.
- 11.9. In order to determine exemptions as provided in the applicability of the subpart, the following should be recorded.
  - 11.9.1. Analysis determining the design capacity of the hazardous waste management unit
  - 11.9.2. List of the hazardous waste influent to and effluent from each hazardous waste management unit and an analysis of whether these are heavy liquids.
  - 11.9.3. Up-to-date analysis and supporting data to determine whether equipment is subject to NR 664.1052 through NR 664.1060, including supporting documentation required by NR 664.1063(4)(c).
- 11.10. Records of the equipment leak information will be kept for at least 3 years.
- 12. Reporting <sup>[NR 664.1065]</sup>
  - 12.1. A semiannual report will be submitted to the Wisconsin DNR. The report will include the following information.
    - 12.1.1. EPA identification number, name, and address of the facility





- 12.1.2. For each month during the semiannual reporting period, the equipment ID number of each valve, pump, and compressor for which a leak was not repaired or resulted in a Delay of Repair.
  - 12.1.3. Dates of hazardous waste management unit shutdowns that occurred within the semiannual reporting period.
  - 12.1.4. For each month during the semiannual reporting period, dates when the control device exceeded or operated outside of the design specifications, and any corrective measures taken.
  - 12.2. If, during the semiannual reporting period, leaks from valves, pumps, and compressors are repaired as required, and the control device does not exceed or operate outside of the design specifications for more than 24 hours, a report to the Wisconsin DNR is not required.
13. Scope of Responsibilities
- 13.1. Hydrite Responsibilities
    - 13.1.1. The following LDAR program responsibilities have been satisfied by Hydrite employees and are not required to be satisfied by the LDAR Contractor.
    - 13.1.2. EHS Manager – Responsible for the performance of the LDAR program.
      - 13.1.2.1. Facilitates integration of responsibilities, resources and activities across departments.
      - 13.1.2.2. Represents or delegates representation of the facility in agency interactions, inspections and follow-up.
      - 13.1.2.3. Provides work direction and supervision to the facility LDAR program Administrator.
      - 13.1.2.4. Authorizes the use of the Delay of Repair provisions.
      - 13.1.2.5. Reports LDAR program results and status updates to company management.
      - 13.1.2.6. Embraces and demonstrates a compliance culture.
    - 13.1.3. LDAR Administrator / Associate Environmental Manager – Responsible for coordinating the LDAR program implementation, facilitating compliance, and requesting adequate resources for ensuring compliance, if not present.
      - 13.1.3.1. Provides oversight of the LDAR Contractor – Ensures LDAR Contractor has access to site areas, LDAR program equipment, communication equipment, LDAR Contractor storage and operations areas, and the site LDAR database management system.
      - 13.1.3.2. Reviews reports for accuracy, completeness, and consistency with LDAR program goals and expectations.
      - 13.1.3.3. Provides LDAR communication at all levels, and acts as a liaison between the LDAR Contractor, EHS, operations, maintenance, and other facility personnel.
      - 13.1.3.4. Performs appropriate QA/QC of the LDAR Contractor program implementation to ensure facility compliance.
      - 13.1.3.5. Reviews facility changes through the MOC process for impact to the LDAR program.
      - 13.1.3.6. Participates in periodic internal LDAR program reviews and assessments (audits) and takes corrective action, as appropriate, to ensure continuous improvement of LDAR procedures and work practices.
      - 13.1.3.7. Ensures retention of LDAR records consistent with regulatory requirements.





- 13.1.3.8. Requests resources to adequately ensure compliance, if they do not exist.
- 13.1.3.9. Maintains the LDAR Program Manual, and develops and implements site-specific LDAR program procedures, as needed.
- 13.1.3.10. Ensures the training schedule and content for the LDAR program is up to date.
- 13.1.3.11. Ensures deviations are reported and appropriate actions taken to prevent recurrence.
- 13.1.3.12. Prepares and submits to the agency routine semiannual reports, as required.
- 13.1.3.13. Embraces and demonstrates a compliance culture.
- 13.1.4. Maintenance Department Manager / Scheduler – Responsible for planning, prioritizing, and executing repairs on LDAR components.
  - 13.1.4.1. Assigns a Maintenance Technician to work with the LDAR Contractor and complete the preventative maintenance work order.
  - 13.1.4.2. Must be aware of production operations during the LDAR inspection, and work with the LDAR Contractor to ensure health and safety are the top priority.
  - 13.1.4.3. Assists LDAR Contractor in accessing equipment by operating facility lift equipment, as needed.
  - 13.1.4.4. Generates work orders to repair leaking equipment, and ensures execution of the repairs are performed before deadlines – 5 days for initial attempt at repair, and 15 days for completion.
  - 13.1.4.5. Coordinates isolation of leaking equipment.
  - 13.1.4.6. Communicates the status of repair attempts to the LDAR Contractor, EHS, and operations personnel.
  - 13.1.4.7. Records on the work order the date of each repair attempt, the name of the employee who performed the repair attempt, and the repair method.
  - 13.1.4.8. Works with operations to schedule a unit shutdown to repair an item if other techniques fail to repair the leak.
- 13.1.5. Operator – Responsible for reporting to maintenance or EHS any sensory indications of leaks, missing tags, open-ended lines, or other LDAR-related issues observed during daily activities.
  - 13.1.5.1. Conducts routine sensory (audio/visual/olfactory or AVO) inspections of pump seals and other equipment, and notifies maintenance, Shift Supervisor, or EHS of any leaks observed.
  - 13.1.5.2. Returns fallen LDAR tags to Shift Supervisor.
  - 13.1.5.3. Reports and manages observed chemical releases by following appropriate Emergency Response procedures.
  - 13.1.5.4. Identifies open-ended lines and reports or repairs them, as needed.
- 13.1.6. Process / Project Engineer – Responsible for communicating planned equipment installations or modifications.
  - 13.1.6.1. Communicates via project execution plans whether new units possibly subject to LDAR requirements will be installed.
  - 13.1.6.2. Completes appropriate MOC process checklists to inform Hydrite LDAR Administrator of any process/equipment changes that impact the LDAR program.

## 13.2. LDAR Contractor Responsibilities



- 13.2.1. The LDAR Contractor will conduct the following activities at Hydrite in a manner that protects the health and safety of the technician, as well as coworkers, other contractors, Hydrite personnel and the community. If at any time, a task cannot be completed while achieving these expectations, the Hydrite LDAR Administrator is to be contacted immediately. Health and safety are a top priority.
- 13.2.2. The following specific LDAR program responsibilities are required to be satisfied by the LDAR Contractor.
- 13.2.3. LDAR Supervisor – Responsible for ensuring LDAR program compliance and performance, for ensuring fulfillment of LDAR Contractor contract terms with Hydrite.
  - 13.2.3.1. Ensures all inventory, monitoring, inspection, repairs, recordkeeping, and reporting activities are completed consistent with applicable regulations communicated by Hydrite, Hydrite procedures, this LDAR program Manual, and the LDAR Contractor contract maintained with Hydrite.
  - 13.2.3.2. Performs QA/QC of all data before turning it over to Hydrite.
  - 13.2.3.3. Works with the Hydrite LDAR Administrator to schedule required monitoring activities.
  - 13.2.3.4. Completes daily reports of inspection and maintenance activities.
  - 13.2.3.5. Interfaces with key company personnel, including various operations, maintenance, and other Hydrite personnel to ensure site LDAR compliance.
  - 13.2.3.6. Performs periodic Method 21 performance evaluations.
  - 13.2.3.7. Provides and requires initial and annual refresher training for all LDAR Contractor employees with LDAR compliance responsibilities.
  - 13.2.3.8. Ensures all LDAR Contractor employees working at Hydrite complete required Hydrite contractor training.
  - 13.2.3.9. Notifies appropriate Hydrite personnel immediately upon detection of a leak.
- 13.2.4. LDAR Technician – Responsible for implementation of monitoring, inspections, repair attempts, and other field activities.
  - 13.2.4.1. Completes equipment field identifications, field verifications, tagging and routing.
  - 13.2.4.2. Conducts routine monitoring and inspections at required intervals.
  - 13.2.4.3. Conducts repair follow-up monitoring.
  - 13.2.4.4. Calibrates monitoring equipment prior to usage and provides records of equipment calibration to the Hydrite LDAR Administrator.
  - 13.2.4.5. Maintains monitoring equipment and data loggers in good conditions during usage.
  - 13.2.4.6. Notifies LDAR Supervisor of any observed new components not identified in the database or removed components still in the database.





CHANGE HISTORY LOG

Revision No.	Date	Revised By	Description
0.0	10/28/14	J. Warborg	1. New SOP
			1.

